THE ARCHITECT & BUILDING NEWS

29 NOVEMBER 1956 · VOL. 210 · NO 22 · ONE SHILLING WEEKLY

- OFFICES AND WAREHOUSE, BIRMINGHAM
- A NEW PRESTRESSING TECHNIQUE
- CURRENT MARKET PRICES AND MEASURED RATES

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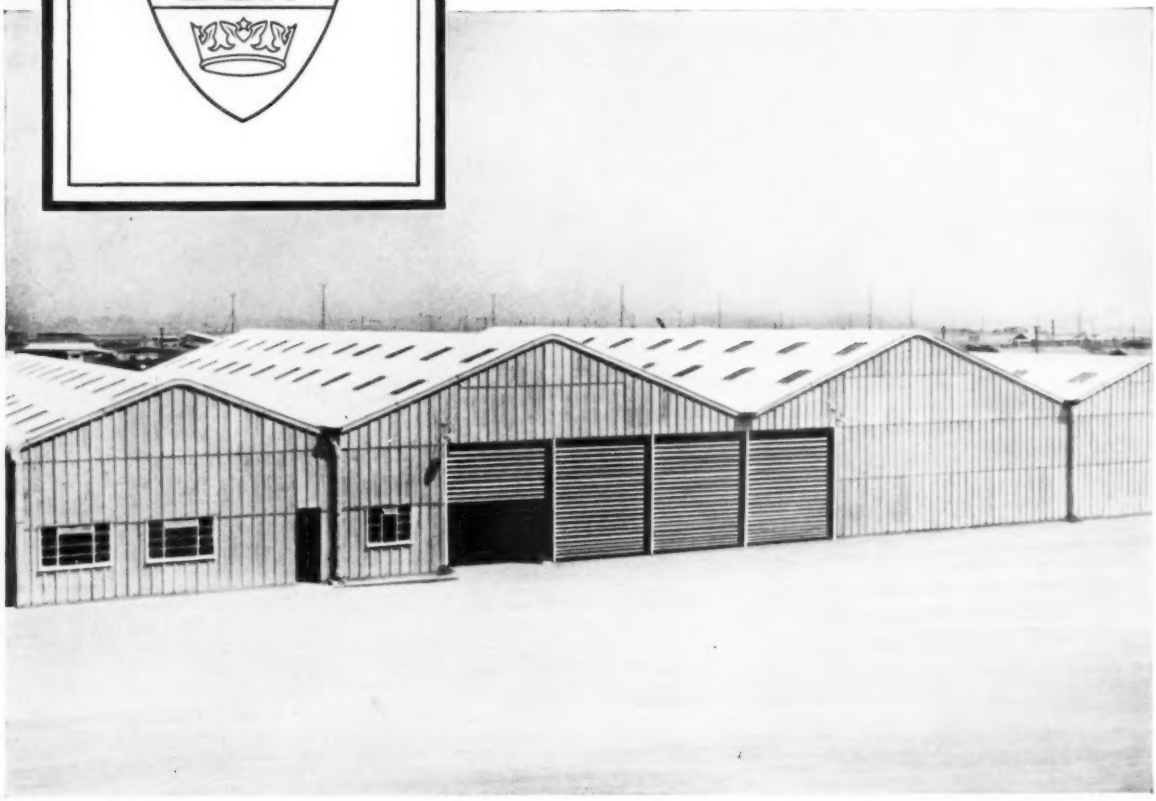

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▲

Meeching Court Flats, Newhaven. Architects: Lionel H. Fewster & Partners. Partner-in-charge: E. W. Gamble, F.R.I.C.S. Engineer & Surveyor: A. E. Motyer, A.M.I.C.E., M.I.Mun.E. Contractors: Brighton Contractors Limited.

STANDARD WINDOWS FOR ECONOMY
in Newhaven Council Flats

It is appropriate that one of the first buildings you see as you disembark from the Dieppe/Newhaven steamer should be a first-class example of the native genius for compromise.

Designing Meeching Court Flats for the Newhaven Urban District Council posed the architects a pretty problem of how to reconcile two irreconcilables. On the one hand was the usual current requirement of Public Authority building—stringent economy. On the other hand the site has a commanding hillside position overlooking Newhaven Harbour, which must be to many overseas visitors their first close-up sight of England—so Meeching Court is a 'shop window', not only for Newhaven, but for the whole country. In the middle of a picturesque huddle of existing building with a fascinating interplay of textures—age-mellowed brick, knapped flint, and timber—an essay in the modern manner would obviously be out of place.

Detail of window grouping—North elevation.

The architects' answer lay in careful conformation of the building to the contours of the site and ingenious detailing—especially as regards the placing and grouping of the windows. All the windows are standard types manufactured by Williams & Williams, but any possible feeling of monotony has been avoided by skilful combining of 1′ 8″ and 2′ ('Z') module windows, the effective but restrained use of concrete subframes and mildly decorative brickwork. Visual emphasis is given to the staircases by the use of Williams & Williams 'Wallspan' partly fixed glazed, partly filled by 1′ 8″ module opening lights. The 'Wallspan' is fixed directly to the sides of the reinforced concrete stair slabs.

H. P. BUCKINGHAM

Passing the Buck

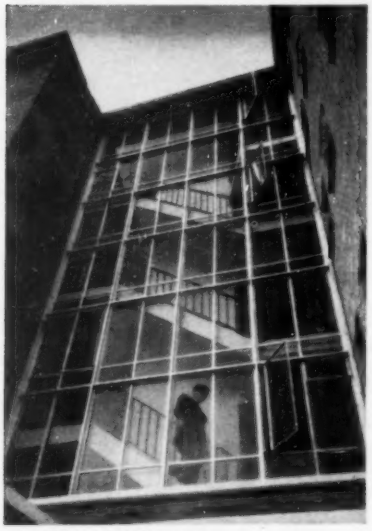
Last month Crawley New Town said goodbye to Mr. H. P. Buckingham who has been Area Manager for the district since Williams & Williams office was opened there in 1954. His place has been taken by Mr. H. G. Randel.

'Buck' goes to Bristol as Divisional Sales Manager to replace Mr. E. P. Butler who is going overseas.

Another candidate for foreign travel is Mr. W. Littlewood of Leeds who is bound for the U.S.A. Mr. W. Brindley becomes Area Manager in his stead.

H. G. RANDEL

W. BRINDLEY

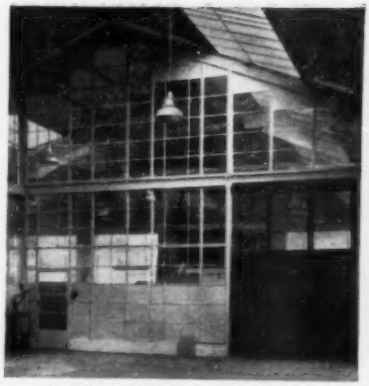


The 'Wallspan' cladding on one of the staircases.

COMBATING CORROSION

A seaside situation such as this imposes severe strain on the corrosion resistance of all metallic components used. Ideally we would recommend that the windows in such a building should be aluminium. Unfortunately the budget in this case would not run to the additional expense involved, so yet again a compromise was reached. Hot dip galvanized steel windows were supplied and these have been treated after installation with aluminium paint. This serves two purposes.

It makes for a similar overall appearance between the windows and the 'Wallspan' and also gives a very real additional protection against the salt-laden atmosphere. The difficulty with this procedure as against using aluminium windows is that the efficiency of the paint film may be affected by surface damage while the oxide layer on a solid aluminium section would automatically renew itself. Also, of course, the paint will need to be renewed periodically.



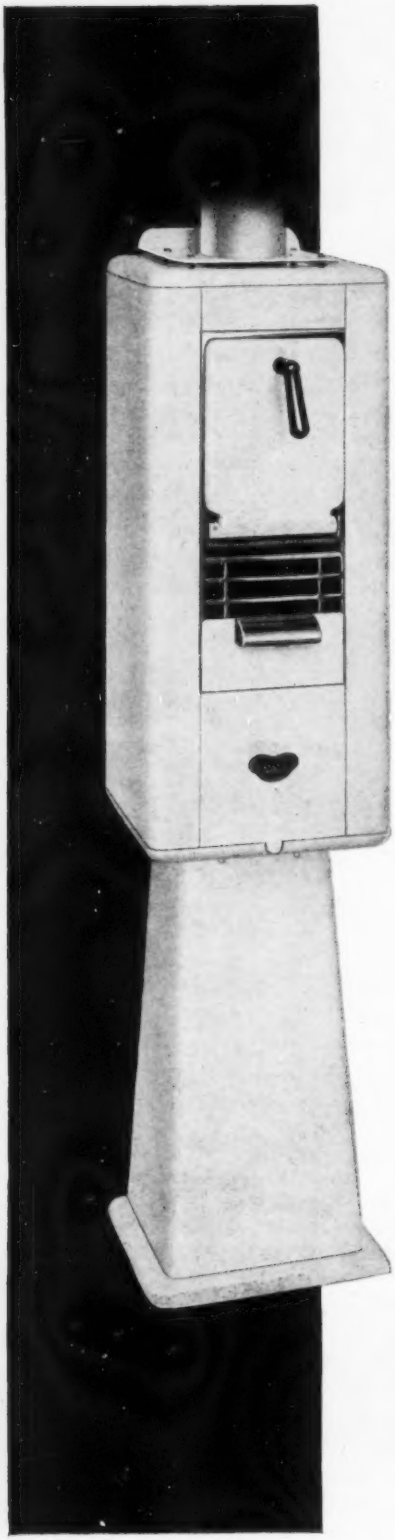
Vehicle Repair Shop, Southern Electricity Board, Reading. Architect: Southern Electricity Board. Windows and Patent Glazing by Williams & Williams.

INGENIOUS USE OF STANDARD SASH

Standard Industrial Sash—despite its very real economic advantages—tends to be regarded as something of a Cinderella among standard windows. It is all the more interesting then to see how effectively it has been used in this contract, not only for the continuous fenestration but also fixed direct to the structural steelwork to form glazed internal partitioning.

The photograph (1) shows how this has been carried out, using standard 'T' form coupling members to join the component sashes together. The glazed door was also manufactured by Williams & Williams.

Note the excellent lighting provided by a continuous run of Standard Sash in the sidewalls combined with Aluminex Patent Glazing in the roof.



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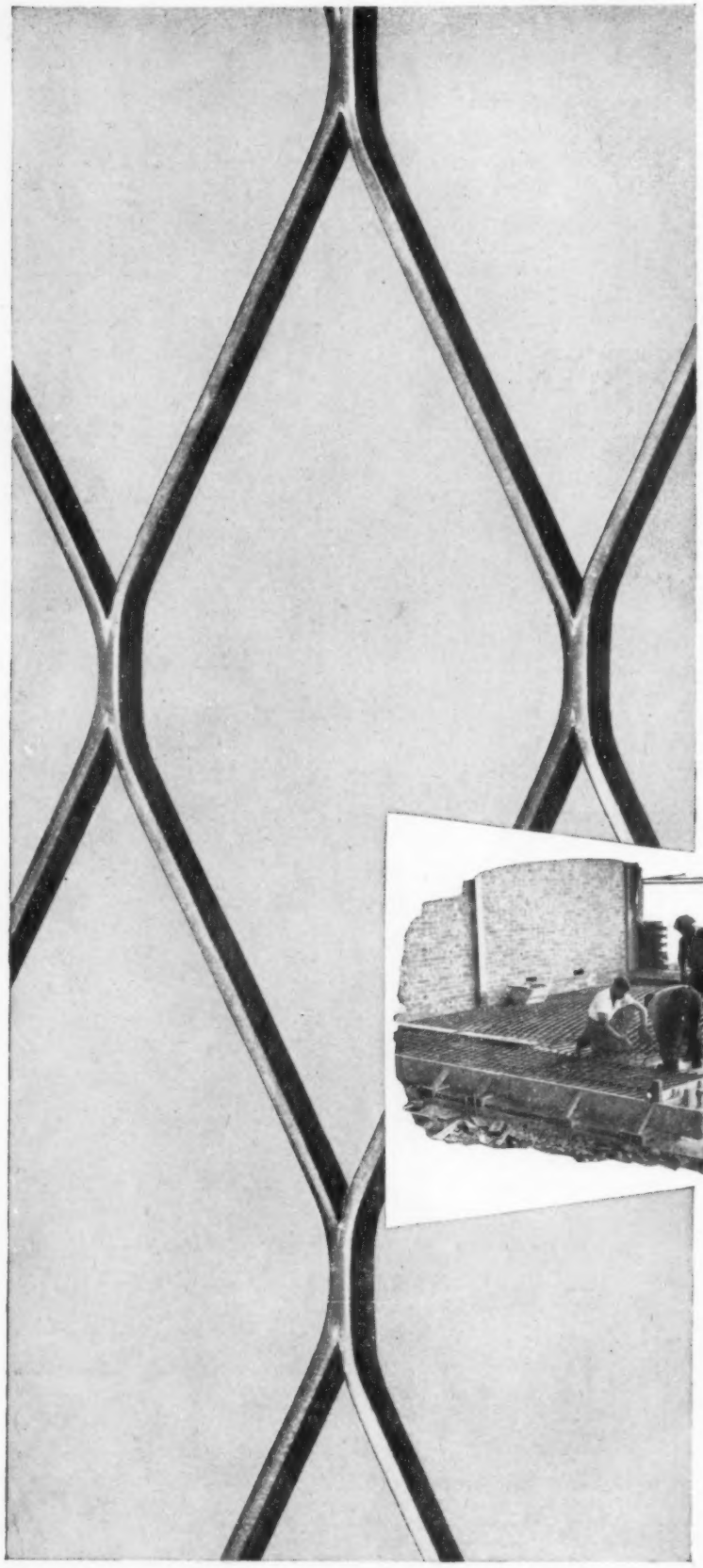

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M313

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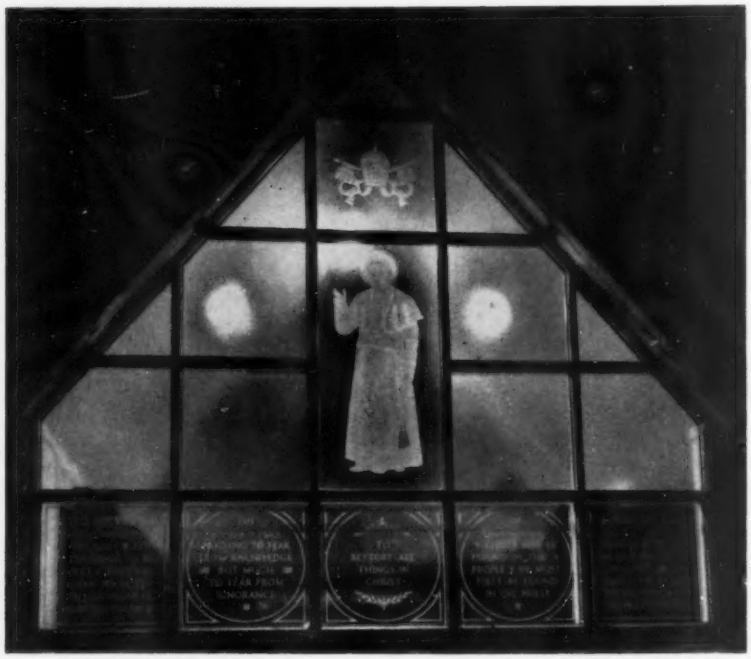

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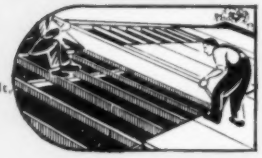
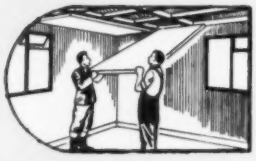


CEILINGS



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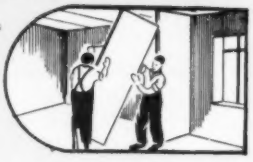

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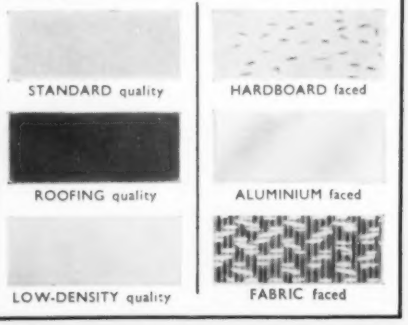

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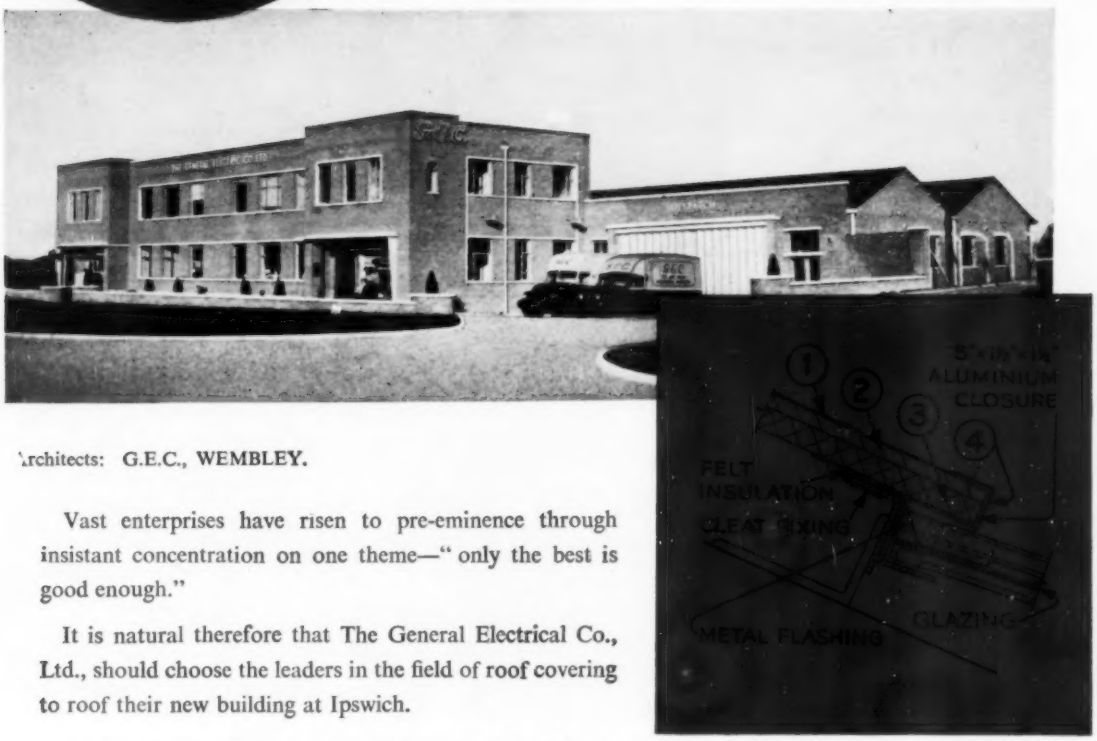

Architects: G.E.C., WEMBLEY.

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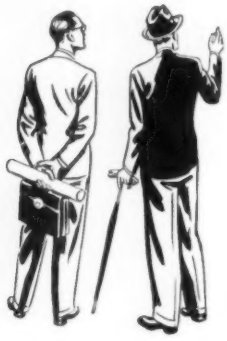

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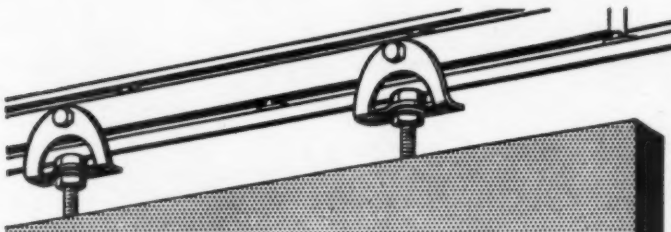

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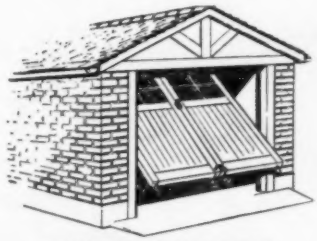

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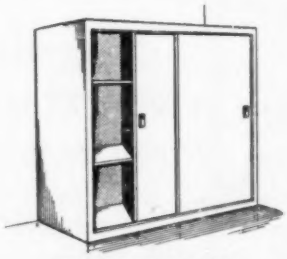

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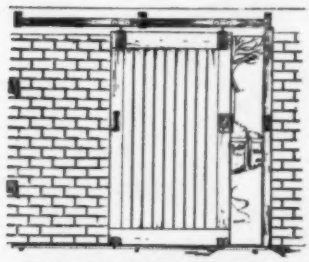

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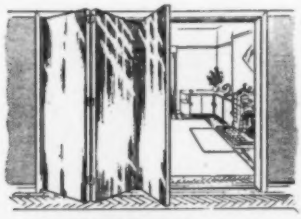

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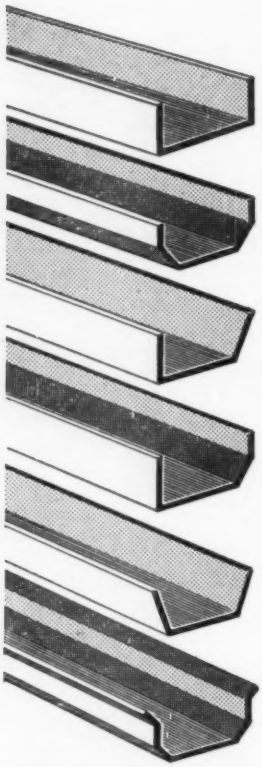

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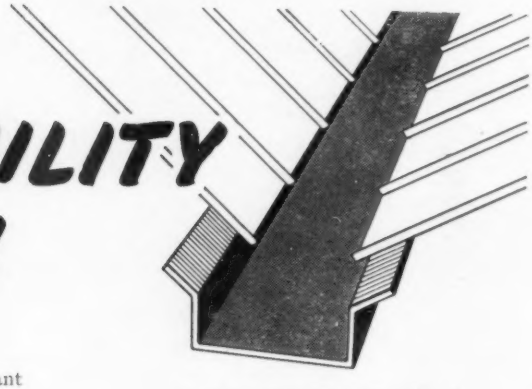

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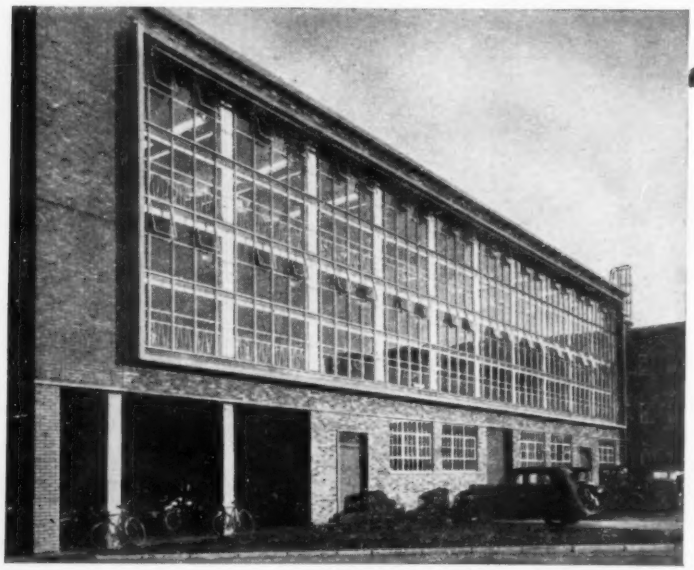

Architects: Fairbrother, Hall & Heages, Edinburgh
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Pictured above is the Drawing Office Window of the new Ferranti Research Laboratory at Edinburgh, where Teleflex Remote Controls are used throughout.

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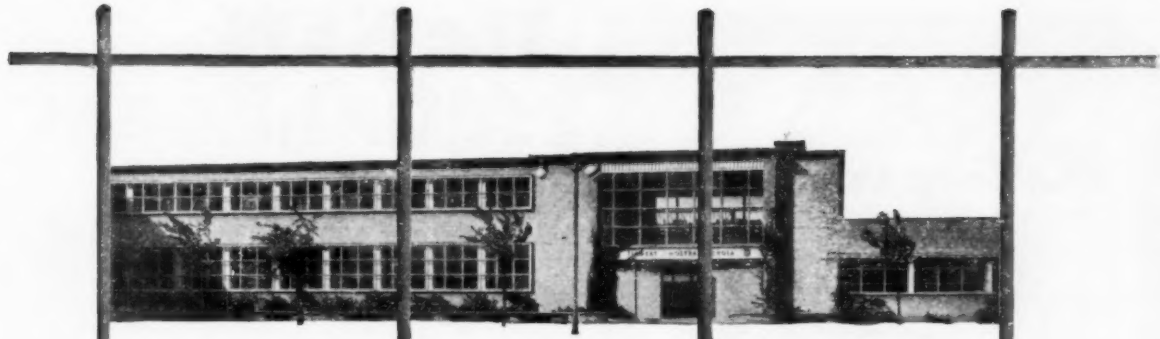

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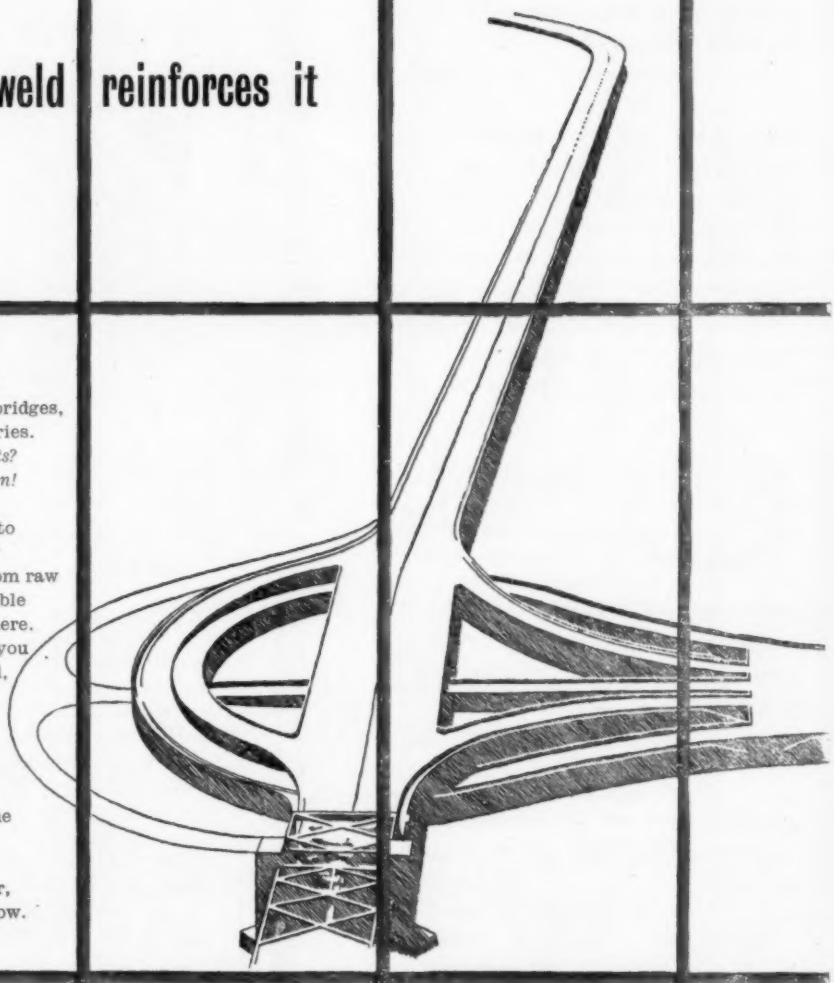

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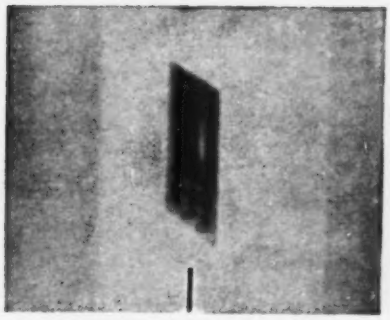

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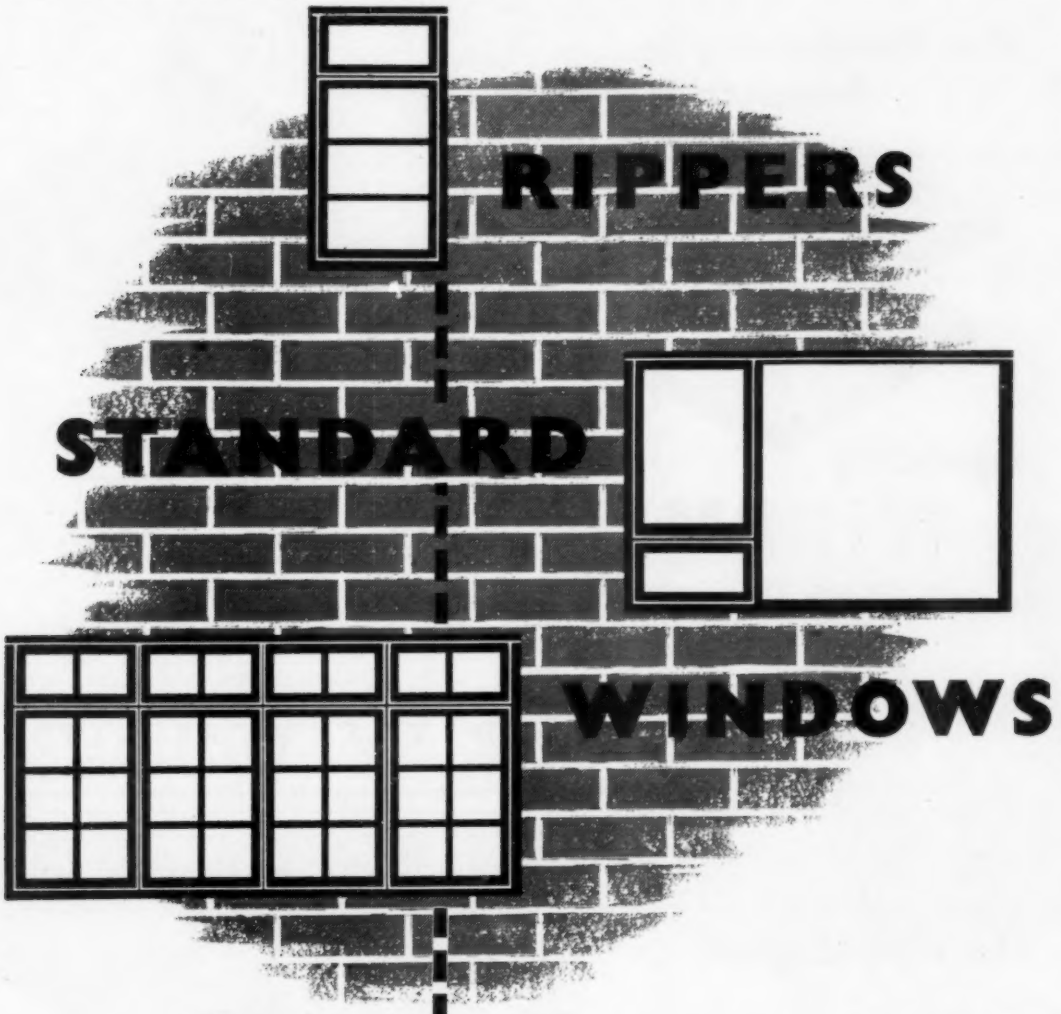

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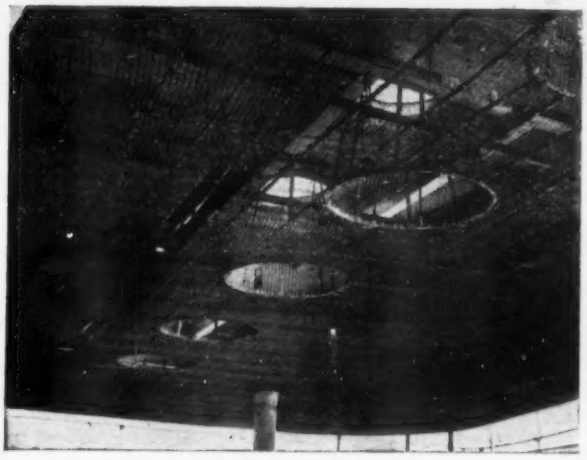

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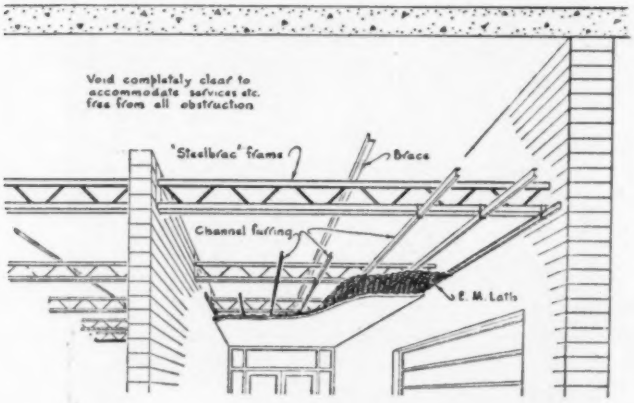

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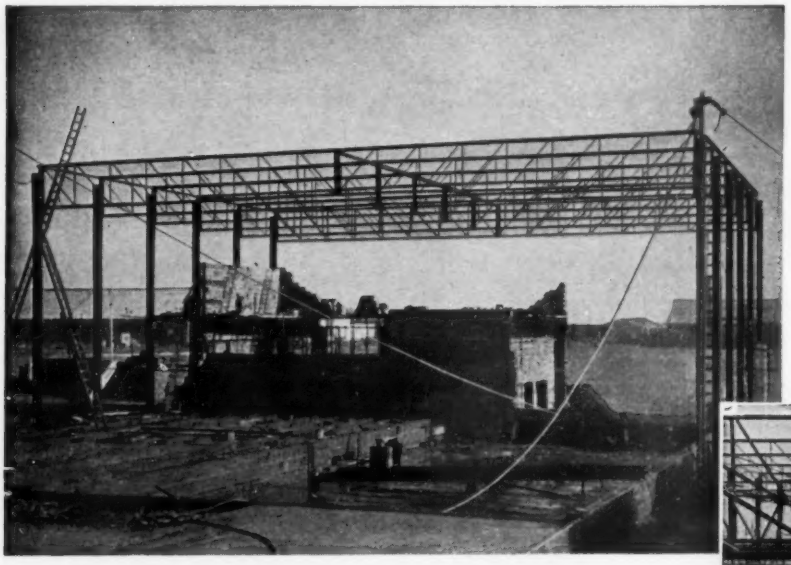

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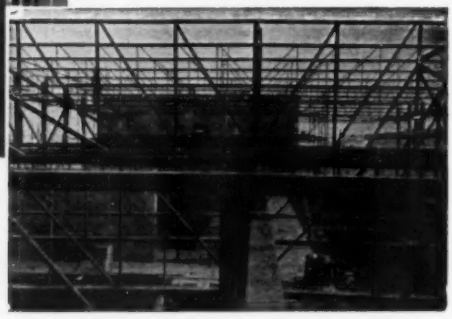

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Vol. 210 No. 22

THE ARCHITECT & BUILDING NEWS

November 29 1956

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BOUC EMISSAIRES

A PLAINTIVE note has been sounded on the other side of the Channel and will probably be echoed by many of the profession here. Under the slightly whimsical title of "Scapegoats", the Conseil Superiur de l'Ordre des Architectes has produced a pamphlet written by Professor Lietveaux.

The pamphlet sets out in some detail the responsibilities laid on architects in France by law and it also enumerates the material obligations placed upon an architect by a sense of his mission as an artist and designer.

Architecture is described as a liberal profession, distinct from any sort of commerce and from the trade of contractor. A glance at the pamphlet is of interest in showing both where the architect's position in the two countries is similar and where it is surprisingly different. His special position in society is dealt with under three main headings.

Under a section headed "Independence", reference is made to the legally established distinction between the architect and the contractor or material supplier. The difference is neatly put "The contractor puts up the buildings, the architect thinks them up." Reference is made to Article VI of the French Code of Professional Conduct which provides that the architect shall be as far as possible independent of his client. He must not lend himself to any operation which would constitute an evasion of either the law or the Code of Conduct. He must refuse to subscribe to a decision which he considers unsafe and he need not sacrifice his reputation merely to conform to his client's predilections. As in England, he is forbidden to advertise, he must not collaborate with contractors, nor may he "make enormous additions to the plans without warning his client of the extra expense". This section does, to some extent, suggest that the French architect has a greater degree of independence in questions of design than is permitted by most clients in England.

Under a section headed "Confidence", the parallel with medicine and the law is drawn. The professional man gives his advice and is trusted by his client on the basis that his advice is disinterested and guided by knowledge. The relationship between architect and client is described as essentially personal. Nevertheless, the suggestion is made that the architect should cover any decisions by the exchange of letters. "These precautions, made necessary by the decay in standards of behaviour, in no way change the architect's position of personal trust." The following opinion will be less than acceptable to those in England who inveigh against the pyramidal structure of private offices: "The architect's office is not a factory. It is not a corporation which can find its justification in narrow specialization corresponding to the complexity of modern techniques. No, the architect must be able to respond personally and immediately to the trust placed in him by his client. Consequently he must limit the number of commissions which he accepts to match his own physical capabilities."

After further developing the architect-client relationship, Professor Lietveaux points out that it has led to an error in the French courts who have often taken the view that the architect has his client's full power of attorney.

The last section, headed "Responsibility", draws attention to many matters of confusion in the French legal system and in common usage. The architect is held responsible for faults in planning, for all legal matters connected with building and for general supervision. Consequently, he is often blamed for faults in construction for which the contractor is really responsible. This is the familiar problem of how to supervise indifferent or dishonest workmanship adequately. Under Article 1792 of the French Civil Code, the architect is responsible for a period of ten years for the building and this has been interpreted in some cases as amounting to a guarantee covering even risks of soil subsidence, etc.

The pamphlet ends with comfort, cold in nature from the lofty plane from which it is offered; it remarks that truly the architect's responsibilities are great, but are they not acceptable because his mission in life is great.

D

EVENTS AND COMMENTS

MR. JOSEPH EMBERTON

You will have read elsewhere the sad news of the sudden death of Joseph Emberton who was taken ill after speaking at an Architecture Club supper last week. Part of an obituary notice reprinted from *The Times* will be found on another page. *The Times* quite rightly describes Emberton as an architectural pioneer. I remember his pioneering days very well. Many of my friends worked in his office at one time or another and, if their life there was not particularly easy, they were all nevertheless devoted to Joe and his work. Simpsons in Piccadilly is still one of the best designed shops I know and many of his other buildings will endure as architecture. I only wish that his new Queen's Hall had come to something for I feel sure that it would have been a contribution to Concert Hall design. Unfortunately I did not know Emberton well, but his manner was always charming and I remember on one occasion when we were working on the same exhibition his warm encouragement and friendly criticism given with a fine economy of softly spoken words.

BRITISH PORTRAITS

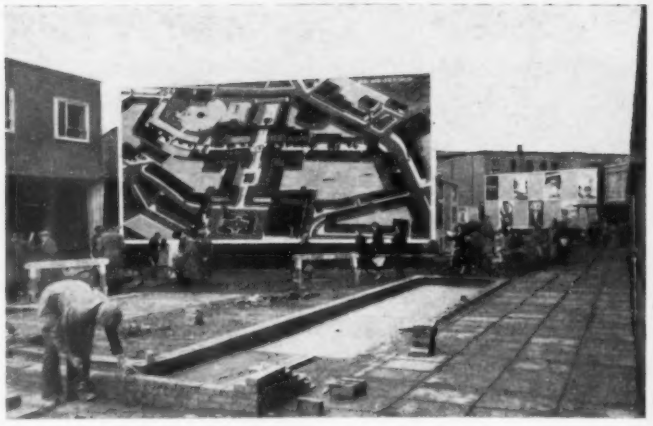
You will need to visit the R.A. winter exhibition three or four times. It is a magnificent show and one to do you good in these somewhat unsettling times. A thousand portraits, and nearly every one worth at least a second look, take a lot of seeing. The faces alone are a subject for deep study, but the faces are not all. In some of the periods illustrated the clothes and the rich backgrounds quite steal the pictures. The painting of Elizabethan lace and jewellery for example, is a subject for study all on its own; and there are many other such ancillary exhibitions within this great one, pets and furniture being but two more of them.

It is extraordinary how many of the earlier portraits, many of them quite exquisite, are by unknown painters. This should be a sobering, even depressing thought for living portrait painters.

The exhibition traces the development of portraits of British men and women—it is not confined to British painters—up to 1920, but it also includes, in a small room apart, a handful of portraits by living artists. Among these is Graham Sutherlands portrait of The Hon. Edward Sackville-West, which is here exhibited for the first time.

Augustus John on Matthew Smith and *vice versa* hang on the same wall.

There are also a great number of lovely drawings and delicious miniatures. Quite apart from its visual delights this exhibition provides a wonderful refresher course in English history, indeed a Dictionary of National Biography would be an ideal companion—with someone to carry it, of course.



KEEPING THEM IN THE PICTURE

Arthur Ling is a firm believer in letting the people of Coventry know what is happening in the reconstruction of the City. My picture shows a hoarding which serves as a screen to hide an ugly corner at the same time provides information in the form of a pictorial map of the completed shopping area. The painting was done by Mills & Rockleys Ltd. of Coventry.

PORTUGUESE ARCHITECTURE STAYS LONGER

The exhibition of Modern Portuguese Architecture at the Building Centre is to stay there until December 14 and it is possible that it may then be shown elsewhere in the country. The catalogues of the exhibition have now arrived. They are small but well produced and illustrated. Visiting the Building Centre to have another look last week I found a new oil fuel section organized and staffed by Shell B.P. Poor fellows, what an unpropitious time to launch such a thing! However, this section has been badly needed at the Centre for some time and I am sure be very busy even before the Middle East oil begins to flow again.

R.I.B.A. CRICKETERS AT THE A.A.

I have seldom seen the A.A. so full of clean limbed lean-faced sportsmen as last Friday when the R.I.B.A. Cricket Club held its fourth annual dinner with the president of the Club, Mr. Peter Adams, in the chair. The guests included the president of the A.A. and representatives from some of the Club's opponents during the past season. Gontran Goulden, in proposing the health of the Club, claimed to have read up his Wisden before the dinner and remembered the horrors of prep-school cricket and the joys of the drowsy outfield where knobbly grass was long and plentiful. He spoke too of the fashion and gamesmanship in cricket and of the hardness of the ball, and finished up by suggesting that in view of the antiquarian names adopted by some architectural cricket clubs the name of the R.I.B.A.C.C. should be changed to "The Corboosers". Mr. Roger Norton, captain of the side, in a real captain's innings, replied for the Club and

told how it sprang from an annual match between an A.A. student's side and the R.I.B.A. The Club now has some 40 members. This is quite an achievement when one remembers that it is a mid-week club and that the team has to ask for or take some time off from the office to play. Mr. John Seward of Manchester made an excellent speech welcoming the guests and Mr. Bob Tobitt, of Fairweathers the builders and who is also their wicket-keeper, replied most amusingly. Either I am getting old or speeches at this type of function are improving. The A.A. has not seen so robust an evening for a long time.

BATSFORDS BEAUTIFIED

From cricket one passes easily to Batsfords. This respected, beautifully produced and well-illustrated firm celebrated the opening of new "showrooms" at 4 Fitzhardinge Street, Manchester Square, last week with a comely party. The two ground floor rooms have been decorated by Brian Batsford in the high grade H. and G. manner. Mr. Batsford told me that he found most of the decorated book shelves in junk shops where he also found most of the *objets d'art* with which the rooms are sprinkled. I thought the scheme was a great success as a piece of décor but I wondered whether it made a bookshop. Perhaps on the other hand it is just the way to set off the type of book in which Batsfords specialize. It will certainly be comfortable to browse there. The elegant company was headed by Sir David and Lady Eccles and Sir Mortimer and Lady Wheeler, and included quite a number of architect authors .

F.L.W.'S CHICAGO TOWER

Frank Lloyd Wright's mile-high office block project "Illinois" was illustrated on this page some weeks ago. The Architectural Forum this month publishes F.W.L.'s speech to the Press conference. I found it very difficult to understand. Some facts, however, emerge. "The entire structure is more airplane in character than the usual heavy building construction. . . . For instance, the support of the outer walls and the outer part of the floor is pendant, and the science of continuity is everywhere else employed from inside outward. . . . Transit is by atomic power. . . . These elevators (56 tandem-cab models) are to be entirely independent of ordinary suspension systems. As they rise and emerge on ratchet guides independent of the tripod into the outside air, they appear as graceful vertical features of the Illinois. . . . This combination escalator-elevator service should fill or empty the entire building (130,000 souls) within the hour. . . . The Illinois employs again the proved system of taproot foundation sloping to hardspan or bedrock and let into bedrock. . . . It is similar in principle to the foundation system that saved the structure of the Imperial Hotel (Tokyo, in the 1922 earthquake). . . . There would be no sway at the peak of the Illinois. . . . Elevators, parapets and all exposed vertical members are of gold-coloured metal. . . . Covered parking for about 15,000 cars, two decks each for 50 helicopters, gross floor area 18,500,000 sq ft. Net rentable area 13,000,000 sq ft. . . . All this well done, the building will be centuries more permanent than the Pyramids."

F.L.W. estimated the cost at a hundred million dollars (a record $5 per sq ft! comments the Editor of the Forum).

Well, you certainly have to hand it to the old boy. He is 87.

KINGSTON RECOGNIZED

We must also hand it to Eric Brown, head of the Department of Architecture of Kingston School of Art for his course has received R.I.B.A. recognition, and his students are thereby exempt from the Institute's examinations. Students obtaining the Schools Diploma will be eligible for elections as A.R.I.B.A. without further examination. A unique feature of this recognition is that both stages (Intermediate and Final) have been granted simultaneously. The school has obtained recognition in a shorter period than any other school of architecture in Great Britain. The Surrey County Council and Mr. Reginald Brill, principal of the School of Art, are also to be congratulated on the success of their Department of Architecture.

KENSINGTON PALACE

One of my agents tells me that the State Apartments at Kensington Palace are once more open to the public after an extensive refit. These splendid rooms now contain pictures from the Royal Collection and furniture and other objects from Queen Mary's collection. They include a group of things assembled by Her late Majesty as a memorial to Queen Victoria, and a number of magnificent royal costumes from the London Museum.

The rooms have been extremely well redecorated and lighted, but the general effect is alas that of a museum although the rich costumes in their illuminated glass cases do help to remind one that the Palace was one lived in by royalty.

The names of the various rooms are clearly displayed; this is a welcome development and might with advantage be followed in other historic buildings. My agent was particularly impressed by the flock wall papers. It is said that this type of paper was here used for the first time.

When you visit the Palace do not miss the delightful wind indicator in King William's gallery.

TITE PRIZE AND SOANE MEDALLION, 1957-58

The R.I.B.A. wish to remind intending competitors for these two prizes, that the closing date for submission of forms of application is January 18, 1957. The en loge competition for both prizes will be held on the same date—March 19, 1957.

ABNER

NEWS

New Parliamentary Private Secretary M.H. & L.G.

Owing to pressure of other duties, Sir Henry d'Avigdor-Goldsmid, M.P., has felt obliged to give up his appointment as Parliamentary Private Secretary to the Minister of Housing and Local Government. Mr. Sandys has appointed in his place Mr. Geoffrey Rippon, M.P. for Norwich South.

F.R.H.B. President Nominated

The Council of the Federation of Registered House-Builders has nominated Mr. C. R. Setter, J.P., of Bristol, to be President of the Federation in 1957. Mr. I. W. Owen, of Stockport, has been nominated for the office of Senior Vice-President. The Annual General Meeting of the Federation will be held on December 11 next.

Architecture Club Supper

A Supper of the Architecture Club was held at Simpson's in the Strand, on Tuesday, November 20, under the Chairmanship of the President, Viscount Esher, and was followed by a debate on the proposition "That St. Paul's should be given a Picturesque and not a Classical Setting".

The Debate was opened by Sir William Holford, F.R.I.B.A., M.T.P.I., and Sir Giles Scott, O.M., R.A., F.R.I.B.A., and continued by Mr. G. A. Jellicoe, Mr. Peter Smithson, Mr. A. S. G. Butler, Dr. Thomas Sharp, Mr. H. S. Goodhart-Rendel, Sir Patrick Abercrombie, Colonel H. P. Cart de Lafontaine, Mr. Joseph Emberton and Mr. Cyril Carter. It is deeply regretted that after making his speech Mr. Emberton was taken ill and died.

The late Mr. Emberton

The following note about Mr. Emberton is reprinted from *The Times*:

"Joseph Emberton was born at Audley, Staffordshire, on December 23, 1889, the son of Samuel Emberton, and had his architectural training at the Royal College of Art. He began his career in the office of Sir John Burnet & Partners, and in 1922 went into partnership with Mr. P. J. Westwood, continuing this association until 1926. The Wembley Exhibition furnished one of the first occasions for larger experiment in forthright ferro-concrete architecture in this country. Westwood and Emberton were commissioned to design several pavilions, which they did with great credit.

In 1926 Emberton dissolved partnership and set up practice on his own account. The Royal Yacht Club pavilion at Burnham, a building which had a definite nautical flavour about it, clean in its lines and economical in its use of space, was one of his early successes. It won the bronze medal of the R.I.B.A. for the best building of the year. It may not be altogether fanciful to detect some nautical feeling even in the Empire Hall, Olympia, for the great plain superficies fronts on to the Hammersmith Road like the side of a ship, with the small windows like portholes. In the middle thirties Messrs. Simpson commissioned Emberton to design their Piccadilly shop; and once more he produced a building eminently suited to its purpose. The Casino at Blackpool was a further big job, as was the Olympia garage for 1,200 cars. For the Gramophone Company Emberton designed new shops and showrooms, with the whole frontage above street level in coloured glass. This building was especially ingenious in useful interior devices and ably surmounted many problems in lighting and acoustics. More recently he designed a group of tall blocks of flats in Finsbury on the northern boundary of the City of London; and he was nominated as architect of the new Queen's Hall and prepared his design, but it was eventually shelved with the plan to rebuild the hall."

Surrey Building Exhibition

The Ewell Technical College, Ewell, Surrey, is having a building exhibition from December 10 to 15. Among the exhibitors will be the Ministry of Works, the Surrey County Council, the Epsom and Ewell Borough Council, the London Master Builders' Association, the South-Eastern Gas Board and Electricity Board, the Coal Utilization Council, the Timber Development Association, the Zinc Development Association and also various manufacturers.

Ewell Technical College is one of the most up-to-date in the country, and its workshops will be open to visitors during the exhibition.

After the opening ceremony at 2.30 pm on Monday, December 10, the exhibition will be open daily from 11 am to 8 pm until the following Friday; on Saturday, December 15 it will be open from 11 am to 5 pm.

Announcements

W. S. Hattrell & Partners, F/A.R.I.B.A., of 1 Queen's Road, Coventry, and 14 Hanover Square, W.1, have now opened a branch office at 15 Piccadilly, Manchester, 1 (Deansgate 8288), where they will be pleased to receive trade catalogues, etc.

Messrs. Mence & Moore, A./L.R.I.B.A., Chartered Architects, have now opened offices at 71 Murray Street, Georgetown, British Guiana and a separate office establishment, namely: Mence & Moore Group, c/o Demerara Bauxite Co. Ltd., Mackenzie, British Guiana, and will be pleased to receive trade catalogues, etc., at both addresses.

Law and Administration

The Factories Act

Under the Common Law the liability of an owner or employer to people coming on his premises is, in the main, determined by what it would be *reasonable* to expect him to do. He must, generally speaking, take such precautions as are reasonable for their safety. Modern Statutes, however, often impose a much more onerous duty known as an *absolute liability*. In such cases the owner or employer is required to comply with certain specified provisions and it is immaterial whether it was reasonable, or reasonably practicable, for him to take the necessary steps or not; he must observe the provisions of the Statute. One of the important Statutes which lay down absolute liabilities is the Factories Act, 1937. One of the most difficult things that has to be decided in applying that Act is whether any particular premises constitute a factory within the meaning of the Act. The definition is of some importance to a great many people since the term "factory" is given a much wider meaning in the Act than might at first seem likely.

This problem arose recently in the case of *Jones v. Crosville Motor Services Ltd.* In that case it was contended that an omnibus depot which was only used for washing and cleaning the buses did not constitute a factory as defined by the Act. The appropriate definition is to be found in section 151(1) of the 1937 Act which provides "subject to the provisions of this section, the

expression 'factory' means any premises in which, or within the close, or curtilage or precincts of which, persons are employed in manual labour in any process for or incidental to any of the following purposes, namely:

(a) the making of any article or of part of any article; or
(b) the altering, repairing, ornamenting, finishing, cleaning, or washing, or the breaking up or demolition of any article; or
(c) the adapting for sale of any article";

and there then follows the important qualification "being premises in which, . . . the work is carried on by way of trade or for purposes of gain. . . ."

Mr. Justice Hallett said in his judgment in this case that "Whether here the work of, for instance, washing the windows of the buses is carried on by way of trade or for the purposes of gain I should have thought, apart from authority, was at least extremely doubtful. What this bus company is doing by way of trade for purposes of gain is carrying passengers. To say that the work of washing the windows of the buses before they set out on their journey and after they come back is work carried on by way of trade seems to me rather difficult. The words 'for purposes of gain', are alternative to the words 'by way of trade'. If the matter were free from authority, I should feel some diffidence in saying that they were washing those windows for the purposes of gain. They were washing the windows to make the bus fit to go on to the road without discredit to its owner, and when it goes out on the road the conductor would collect fares and so it would be used for purposes of gain".

But, as the Judge indicated, the question of how direct the purpose of gain in regard to an activity must be to bring the place where that activity is carried on within the definition is a matter of considerable difficulty upon which it is difficult to be certain how the law stands. There are, however, a number of important qualifications to the definition at the end of section 151(1).

At the end of that sub-section and for the avoidance of doubt there appear a number of specific examples which are declared to be, or not to be, factories "whether or not they are factories by reason of the foregoing definition". Whenever the definition is considered these exceptions should be carefully examined. In this instance the omnibus depot was found to be outside the definition by reasons of one of the exceptions just mentioned.

Onus of Proof

Not all statutory liabilities imposed an absolute duty upon the persons concerned. Some of them as, for example, the *Docks Regulations* made under the *Factories Act*, 1937, provide that certain things are to be done if they are "reasonably practicable". In such instances the question arises from time to time of who is to show whether or not the thing required to be done was or was not reasonably practicable. This point was considered recently by the Lord Chief Justice in the case of *Walter Wilson & Son Ltd. v. Summerfield.* In that case the particular duty was to provide an accommodation ladder or gangway for a ship if it was reasonably practicable. Upon this requirement the Lord Chief Justice said: "If the inspector finds that a ladder is provided it seems to me that he is entitled to say: 'Why have you not provided an accommodation ladder or gangway?' If the answer is: 'Because it is not practicable to do so', then clearly the onus is upon the ship in the first instance to show that it was not practicable. The ship knows the facts. The ship can say whether they had a gangway on board or whether they could have got a gangway and, if they had not provided one, *prima facie* unless they can show that it was not practicable, they are in default."

Rent Control

Since the Government published the *Rent Bill* they have provided a White Paper giving certain statistical information about matters relating to rent control. The White Paper consists of a number of tables, one which show the total number of dwellings in the country and how many of them are at present rent controlled. There is a good deal of information given about the number of houses which will be released from rent control if the present Bill goes through in its existing form. The White Paper also affords some indication of the amounts by which the rent of houses which still remain within the provisions of the Rent Restrictions Act could be raised by virtue of the provisions of the Rent Bill.

The White Paper does not, however, give any information about the relation between supply and demand for housing accommodation in terms of families and houses. Though the White Paper has drawn upon the 1951 Census figures it does not provide a table showing the number of families and their respective sizes and of the range of dwelling sizes. It may be thought that this information is at least as relevant and important, if not more so, than the information which is set out in the White Paper.

In Parliament

Housing Supply and Demand

The second reading of the Rent Bill, which was debated on November 21 and 22, became the occasion for a Government claim that within a year or so the average supply and demand for homes would be in equation.

It was put forward by Mr. Enoch Powell, Parliamentary Secretary to the Ministry of Housing and Local Government, in the opening speech, and reiterated by Mr. Duncan Sandys at the end of the debate. Mr. Powell claimed that Britain's housing achievement since the war had been by any standard remarkable. Between 2½ and 2¾ million new houses had been built—a record which bore comparison with any European country. In 1949 Mr. Bevan had said that the number of houses per head of the population was then higher than before the war, and was constantly improving. Since that time more than 1½ million net additional homes had been provided, so that the ratio between the number of families and the number of homes must be more favourable today.

The census of 1951 provided a firm basis on which could be founded an estimate of need and of the availability of houses to meet it. A study by P.E.P. at the end of 1954 reached the conclusion that rough estimates suggested that the need for additional dwellings had fallen to about 750,000 in England and Wales, and that "the demand for new houses is beginning to be met". It could be calculated that from then onwards until the end of 1957, when the Rent Bill's provisions would be coming fully into force, there would be a net addition of at least threequarters of a million homes. It followed, therefore, in an objective basis, that we were now within sight of, and should in 12 months' time or so be level with, an equation of the average supply and demand for homes.

The general case for the Bill, as summarized by Mr. Powell, was that it would halve the drain on rented accommodation, release additional accommodation that was now under-used or wasted, arrest the deterioration of millions of houses for lack of maintenance, and end long-standing injustices between tenants and between landlords and tenants.

The opposition were more than sceptical about the "equation" claim. Mr. Mitchison characterized it as

wicked nonsense, and this was repeated in various forms by other speakers. The Bill itself he condemned as iniquitous, ill-timed and harsh, and as the first step towards the complete abolition of rent control. Mr. Callaghan, returning to the charge at the end of the debate, said it was possible to create equality in supply and demand by choosing the appropriate level: this was equality in the supply and demand of Rolls-Royce cars. Was the Minister proposing to get his equality in housing by allowing rents to rocket, or by stifling demand? If not, was he saying that in 12 months' time every family would have a home and every woman who wanted it, her own kitchen? That was how the Labour Party saw the equation of supply and demand.

Mr. Sandys stuck to his contention. No one, he said, should exaggerate the shortage nor overlook the relief that had come for large-scale reconstruction in recent years. If the P.E.P. estimate of 1954 was correct the gap must be closed before long. "It is in my opinion," he stated, "fair to say that taking the country as a whole we are not very far away from the total amount of accommodation that the nation requires." The words were greeted with derision by Labour members, and he went on: "Those are not my words. They are taken from a speech made in this House by Mr. Bevan on Novermber 30, 1953—since when 800,000 more new houses have been built."

At the end of two days' diseussion the Government got the Bill by a majority of 64 votes.

Industrial Sites

Mr. Snow asked the Minister of Housing and Local Government whether he was aware that an increasing proportion of the land in and around the county of London, available for industrial development, was being purchased by large building contractors who would only sell to purchasers prepared to give them exclusively a contract for the proposed buildings; and whether he would call in all applications for industrial development in this area, and refuse planning permission where such conditions were imposed. Mr. Sandys replied that the private acquisition of industrial land and the terms and conditions of its disposal were not relevant to any planning issues within his jurisdiction, and he could not take these matters into account in deciding whether to call in applications for planning permission or in giving decisions on applications. (November 14).

Coming Events

The Royal Institution of Chartered Surveyors

December 3 at 5.45 p.m. "The Chartered Surveyor in Local Government", by H. E. G. Stripp, A.M.Inst.C.E., F.R.I.C.S., M.I.Mun.E., at 12 Great George Street, Westminster, S.W.1.

The Building Centre

December 5 at 12.45 p.m. Lunchtime film show. Prestressed Concrete, by Concrete Ltd., at 26 Store Street, W.C.1.

Leeds School of Architecture and Town Planning

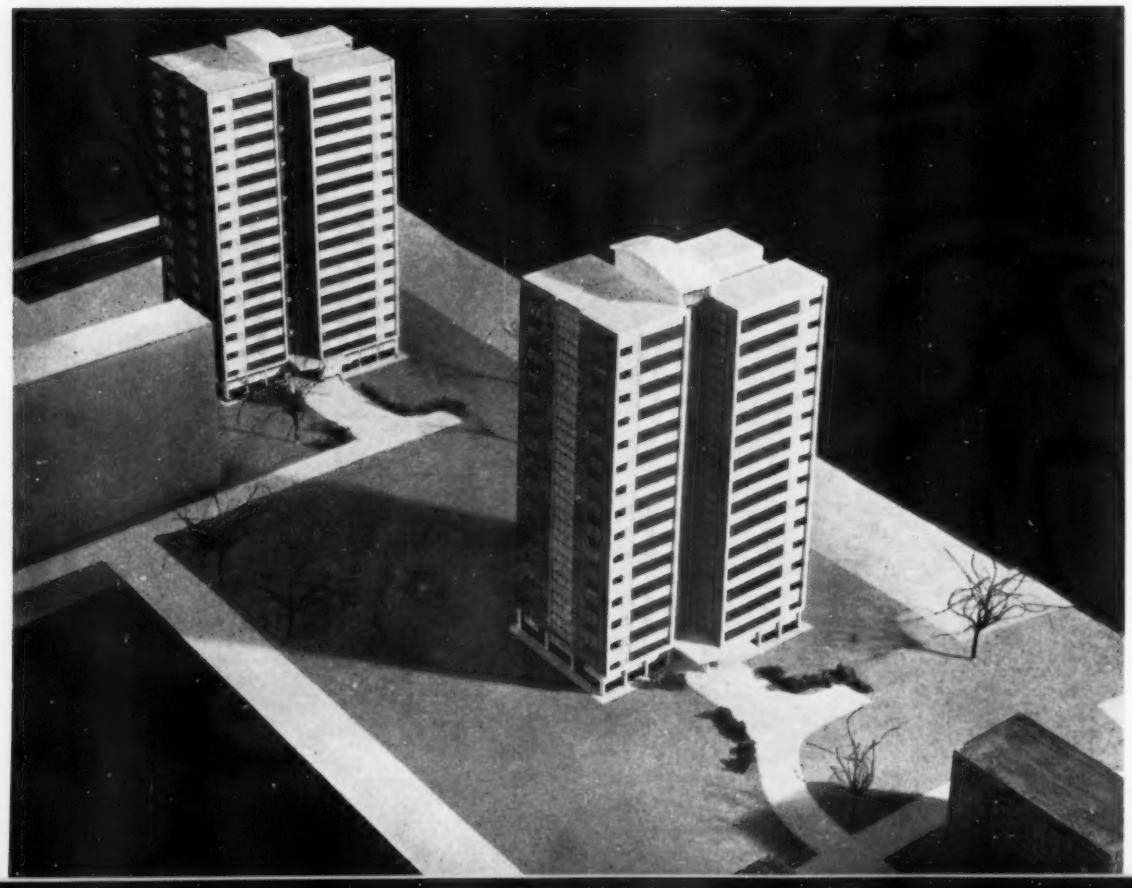
December 5 to 15. Exhibition of Architecture in U.S.A. At 43a Woodhouse Lane, Leeds, 2.

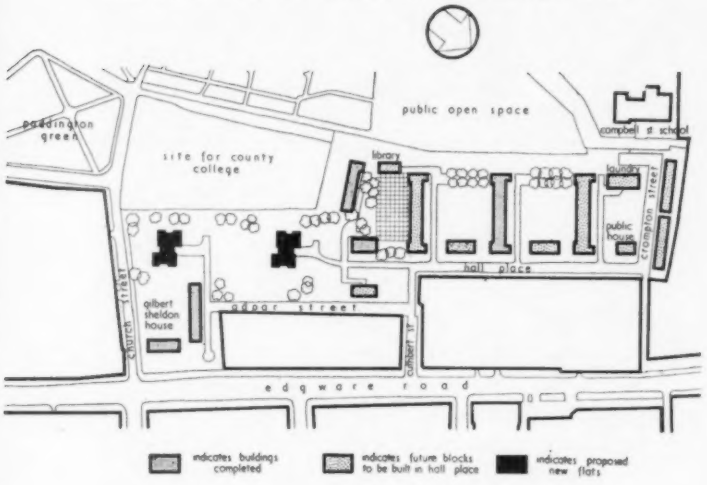
December 6. "Nineteenth Century Architecture in Leeds", by Norbert C. Lynton. (College Lecture Theatre in association with the Thoresby Society.) At 43a Woodhouse Lane, Leeds, 2.

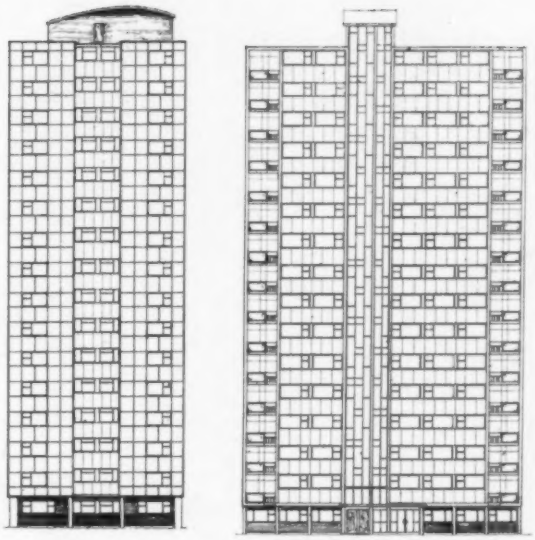
Town Planning Institute

December 6 at 6 p.m. "An Educationalist looks at Town and Country Planning", by Jack Longland, M.A., Director of Education, Derbyshire. At The Livingstone Hall, Broadway, Westminster, S.W.1.

Below is a model of the two tower blocks of flats which Paddington Borough Council wants to build near Paddington Green







ELEVATION SCALE: 1 IN = 48FT

PLANS: 1 IN = 24FT

TOWER FLATS

Paddington

Architect:

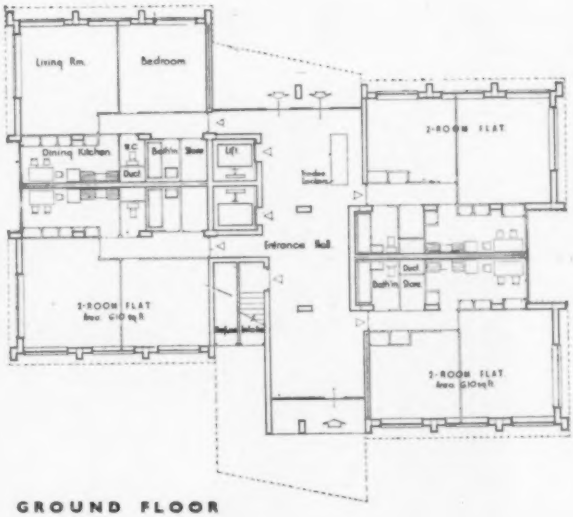
R. A. JENSEN, former Borough Architect

PADDINGTON Borough Council is putting forward a scheme to build two tower blocks of flats in Braithwaite Place as part of their slum clearance and redevelopment programme. Earlier proposals for high blocks in this neighbourhood were rejected because they would have greatly exceeded the zone density laid down, but the new proposal will not raise the average density of the whole Hall Park Development area above that figure.

At an early stage in planning the idea of slab blocks was found impractical because one block cast a shadow across another, and flats in different blocks overlooked one another. Within the blocks, open planning would have made great savings in space but was disallowed by the L.C.C. regulations, and a most economical lay-out with eight flats per floor was rejected in discussions because of inadequate means of fire escape. A tower block with four flats per floor was finally chosen, and furthermore it was considered that two sixteen-storey blocks of this type would form an admirable climax to the Hall Park Development scheme.

The internal planning of the flats owes much to the best examples of Continental practice. Great economy results from the use of internal bathrooms and W.C.s, and it is hoped that these can be ventilated without requiring a mechanical system. There is only one staircase, and two lifts which stop at alternate floors. Circulation space amounts to about 19 per cent of the whole. Each floor contains two two-bedroom flats and two three-bedroom ones, and the ground floor four one-bedroom flats, making 64 flats in each block.

TYPICAL FLOOR



GROUND FLOOR

Careful attention has been paid to daylighting and the shadows cast by each block and by surrounding buildings. Balconies have been eliminated; instead there are French doors with a balustrade so that each living room can become a balcony but no area is wasted in winter. Drying cupboards have been provided for washing to prevent it being hung outside, and each flat also has a box room.

On the ground floor are postmen's and tradesmen's lockers to reduce the traffic in the lifts. Refuse disposal is by dry chute.

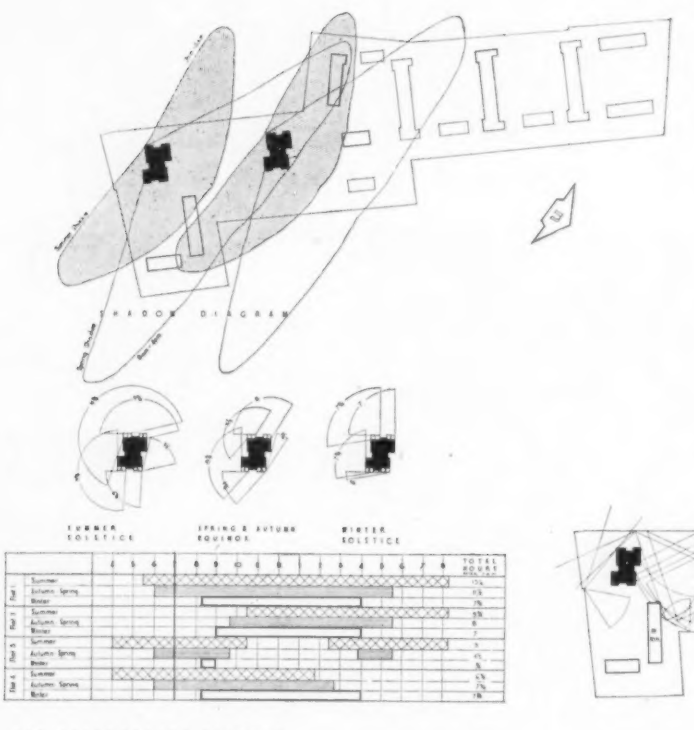
Structure and Services

A reinforced concrete frame with maximum use of precast elements was considered the quickest and most economical system to use. Dry finishes are to be used for the external cladding, internal partitions and floor slabs.

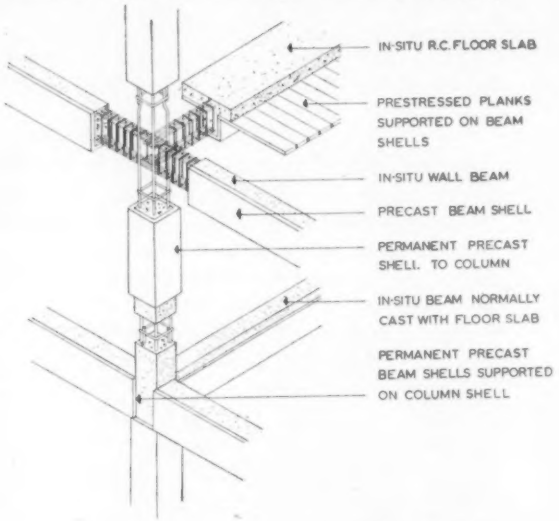
For heating, a system is being investigated whereby floor heating would use cheap electricity at off-peak periods, using the concrete as a storage medium.

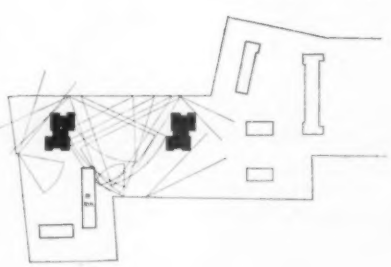
The expected overall cost is approximately £350,000.

PADDINGTON FLATS

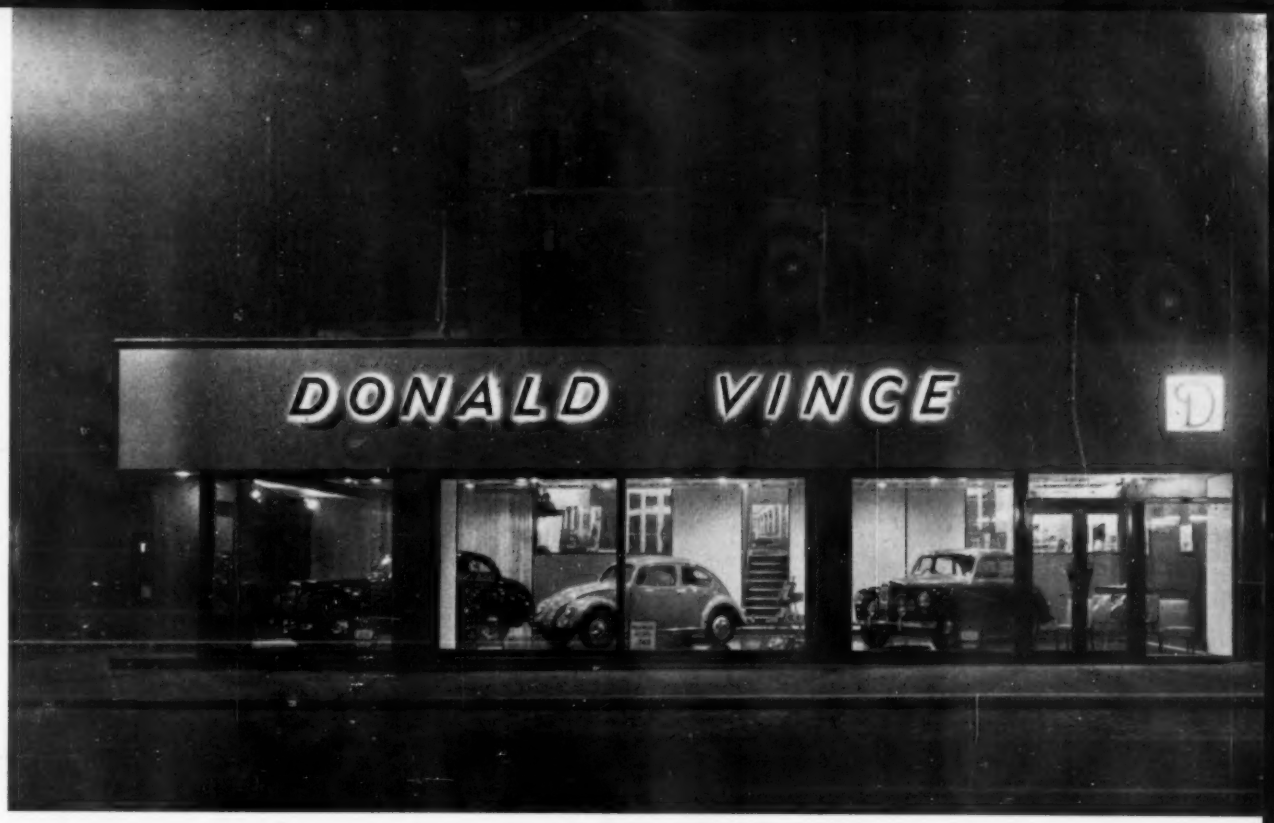


Above is a diagram of the shadows cast throughout the day by each tower block. Below that is a chart giving the number of hours of direct sunlight received daily by each particular flat. The diagram on the lower right shows the arcs of daylight from various positions on the plot boundaries

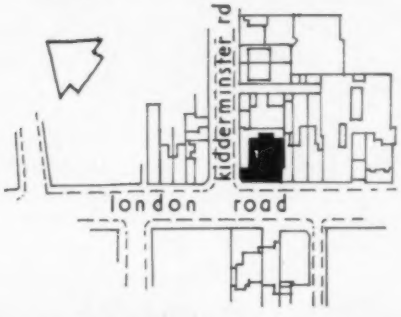




Above is a diagram of the structural system. The precast beam shells support prestressed planks on which is cast the floor slab, and the slab itself will incorporate insulating layers of aerated concrete in order to avoid condensation troubles. This system will largely eliminate the use of shuttering



Above, the frontage to London Road by night. Below, the side elevation with its timber facia



MOTOR SHOWROOMS

Architects: *Croydon*
JOHN E. BEARDSHAW
& PARTNERS

AT the turn of the century, houses in London Road, West Croydon, possessed front gardens worthy of respectable domesticity, but these have long since disappeared with the scrambling spread of London into its suburbs. The gardens have given way to shops, and the upper parts of the old houses have become homes for the shopkeepers.

When Numbers 158-162 were acquired by Donald Vince Ltd. it was found that the three shops had been partly opened up into one, with the floors on varying levels, and had lain empty and disused for some time. The planning of the various parts was somewhat haphazard and quite obviously unsuitable for a motor showroom. Dry rot and woodworm were discovered in several places, and this made a new concrete floor inevitable. The roof over the shops appeared to have been hung from the sky itself, and has had to be supported by new beams and made weathertight.

In order to co-ordinate the various units as one showroom, the dividing walls had to be removed and a new shopfront and fascia provided. The existing

MOTOR SHOWROOMS

openings to the higher levels had to be altered to give some semblance of coherence, and a false ceiling was hung from the new beams to hide the differing ceiling levels and a multitude of existing finishes. The problem of providing accommodation for four cars was solved by making access from the rear of the premises to two of the upper rooms which were opened into one, and a new staircase to reach the higher level. The accessory showroom had already been used for a similar purpose, and little structural work was required here.

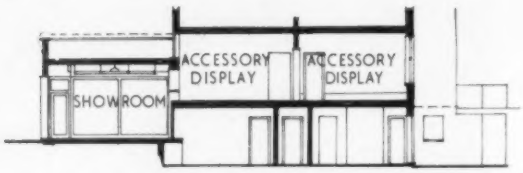
The type of cars to be exhibited made necessary a dignified treatment, and this has been obtained partly by keeping to a basic black and white decorative scheme, and partly by reducing the shape of the main showroom to a simple rectangle, emphasized by the white border to the black tiled floor, and by the repetition of the rectangular shape in the suspended ceiling. All the internal walls were brought to common faces, and softwood linings provided to all openings. The electrical installation was renewed throughout the showrooms, and the old fittings replaced.

As a contrast to the black and white, the panels beneath the openings to the upper display level and the lighting panels in the false ceiling are painted Cardinal red, and the structural ceiling above matt black. The ceilings in the upper showrooms are lime green. The end wall of the main showroom is hung with paper giving a marble effect, and the rear wall is treated with Parana pine with a concealed door to the office; the panels at the other end and the staircase walls are hung with a blue, grey and white striped paper. The sides of the piers between the show windows are hung with grey and white striped paper. In contrast to the grey walls and ceiling of the staircase lobbies, the wall at the head of the staircase is hung with red paper with gold stars.

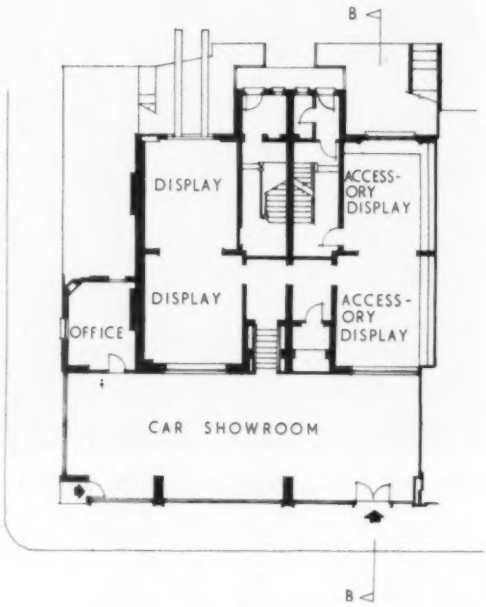
The new shopfront has been constructed of mahogany and also the surround to the fascia, which is itself fluted asbestos painted blue-grey on the front elevation, and mahogany vertical boarding, secret nailed, on the side. The stallrisers, entrance steps and the piers between the show windows are faced with *in situ* terrazzo containing black and white aggregate.

The work was carried out on a negotiated contract, which was completed in thirteen weeks.

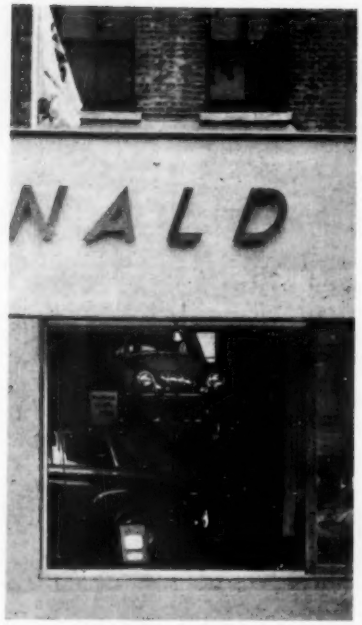
Partner in charge: G. R. TOOGOOD
Assistant in charge: G. H. VIVIAN
General Contractor: SIGGS & CHAPMAN, LTD.



PLAN & SECTION SCALE: 1 IN = 24 FT



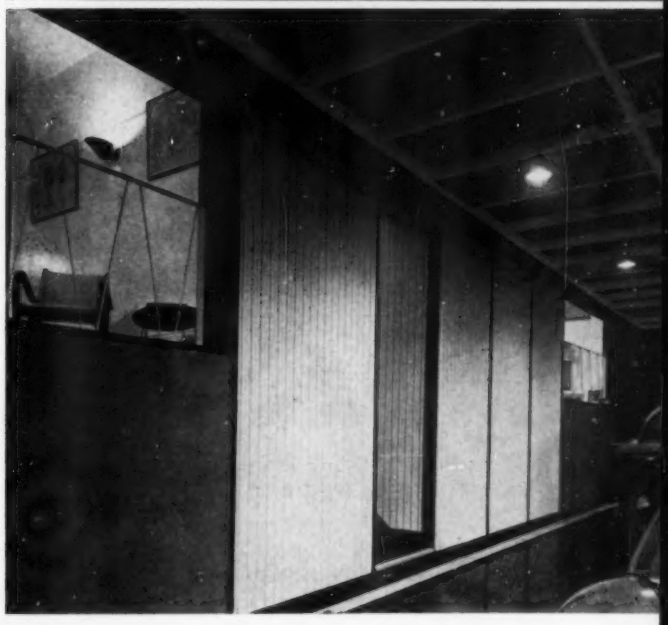
Looking from the upper level display area towards the main showroom below



A view showing the display space above the level of the main showroom

sub-contractors:

Electrical Installation: F. Wingfield Ltd. *Floor Tiling:* Neuchatel Asphalte Company Ltd. *Glazing:* C. Collin Ltd. *Ironmongery:* G. & S. Allgood Ltd. *Illuminated Signs and Lettering:* Neoncraft Ltd. *Linoleum:* Inlaid Rubolin Flooring Ltd. *Paint:* Lewis Berger (G.B.) Ltd.; Imperial Chemical Industries Ltd.; International Paints Ltd. *Painting and Decorating:* Leslie Free Ltd. *Plastering:* Howes & Spalding Ltd. *Terrazzo:* Alan Milne Ltd. *Waxing and Polishing:* C. Bashford Ltd.



Top, an interior view of the main showroom with the ceiling grid which incorporates lighting fixtures. Above, the rear wall of the showroom, showing the foot of the staircase which leads up to the higher level display areas. Left, a small reception area at one end of the main showroom, with the glass entrance doors on the right of the picture

The Lower Essex Street frontage of the office block, with the warehouse part visible on the left of the picture

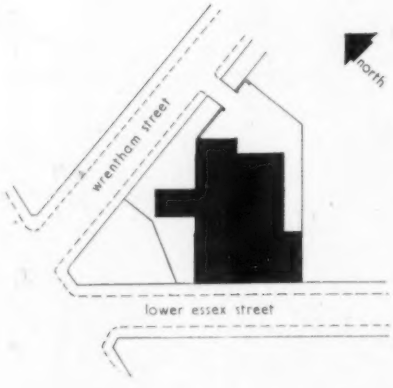
OFFICES & WAREHOUSE, BIRMINGHAM

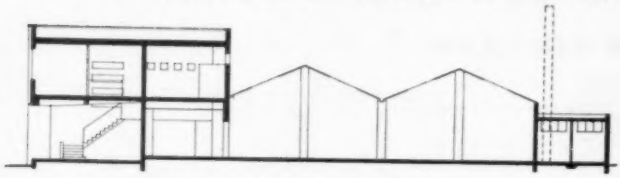
Architect: LEONARD J. MULTON

THE clients, Birmingham Products Ltd., required a warehouse for storing screws, nuts, bolts, etc., with a well-lit packaging and dispatch bay, and two-storey office accommodation incorporating a trades counter and small canteen, with direct access to the warehouse.

The site was level, with two road frontages, and situated in a central city area.

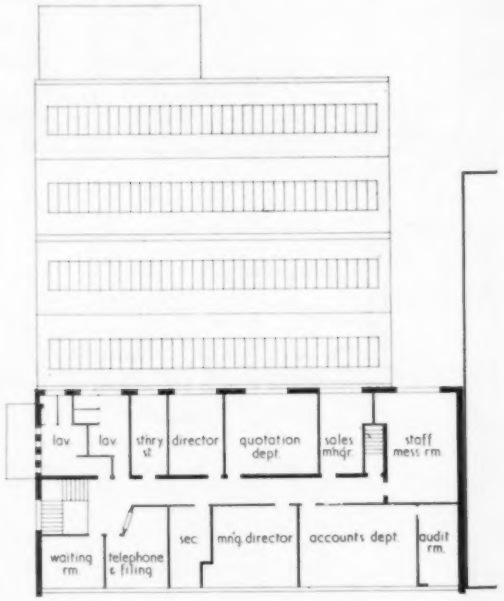
To separate from the office the noise and activity of receiving and dispatching goods, it was decided to put the dispatch bay next to Wrentham Street, leaving a large internal yard for loading and unloading vehicles off the road. This yard also gives access to the warehouse staff entrance and boiler house.



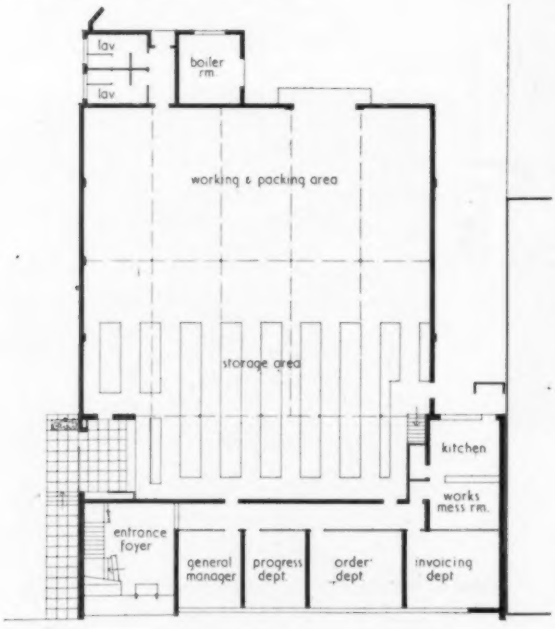


SECTION. SCALE: 1 IN = 32FT

FIRST FLOOR PLAN



GROUND FLOOR PLAN



That part of the warehouse next to the office is devoted to storage.

The office block faces Lower Essex Street, with south aspect and less traffic noise.

Construction

Warehouse walls are load-bearing brickwork. Roof is steel trusses and purlins covered with asbestos sheeting lined internally with insulation board. Continuous runs of patent glazing are provided on each roof slope.

The warehouse floor is "grano" on reinforced concrete, as the site was formerly occupied by houses with cellars.

Office block flank and partition walls are load-bearing brickwork. Lintols over rectangular windows on flank wall are reinforced brickwork to preserve brick facing to soffits.

The first floor is *in situ* concrete, thickened out into beams on each long side to support construction above, which on the front elevation consists of steel stanchions and connecting joists behind a continuous window and brick apron. The timber joisted, boarded and asphalted flat roof is supported between steel lateral beams and load-bearing brick walls.

Dark red sand-faced bricks are used for the office block flank walls, light buff hand-made bricks for the infilling panels above and below first floor windows.

The surround to the ground floor window is riven Westmorland slate, 2in thick, in rectangular panels, bedded to a rough brick backing and secured with non-ferrous metal cramps. The main entrance screen is teak.

Windows are purpose-made steel, with top-hung opening lights to minimise wind disturbance and dust trouble.

First floor ceiling is insulation board. Ground floor ceiling and all walls are finished in "Carlite" premixed plaster.

Floor finish is thermoplastic tiles throughout, except in the entrance foyer, which is tiled in precast terrazzo.

The staircase is precast concrete with a special tooled granite finish. Treads have an inset of linoleum. The hand-rail is extruded aluminium, supported on white stove-enamelled balusters. Soffit and sides of the staircase are painted white.

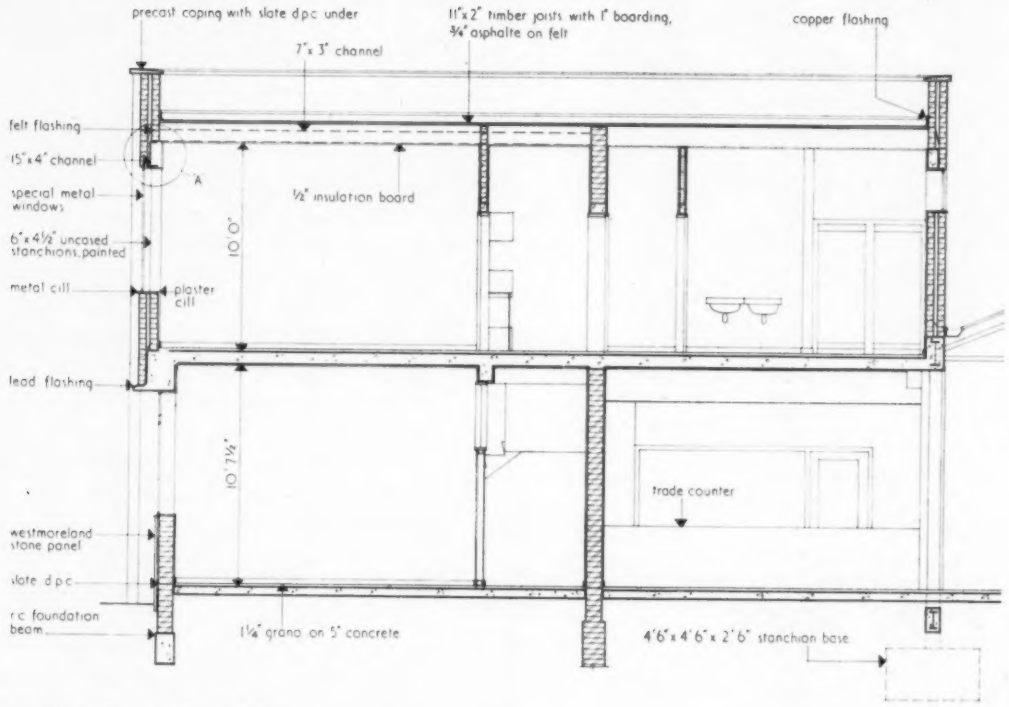
Letters on the office block are built-up lead coated enamelled steel, white on face with blue returns.

Heating

Is provided by a low-pressure hot-water system, fed from a coke-fired boiler operating unit heaters in the warehouse and radiators in the office block.

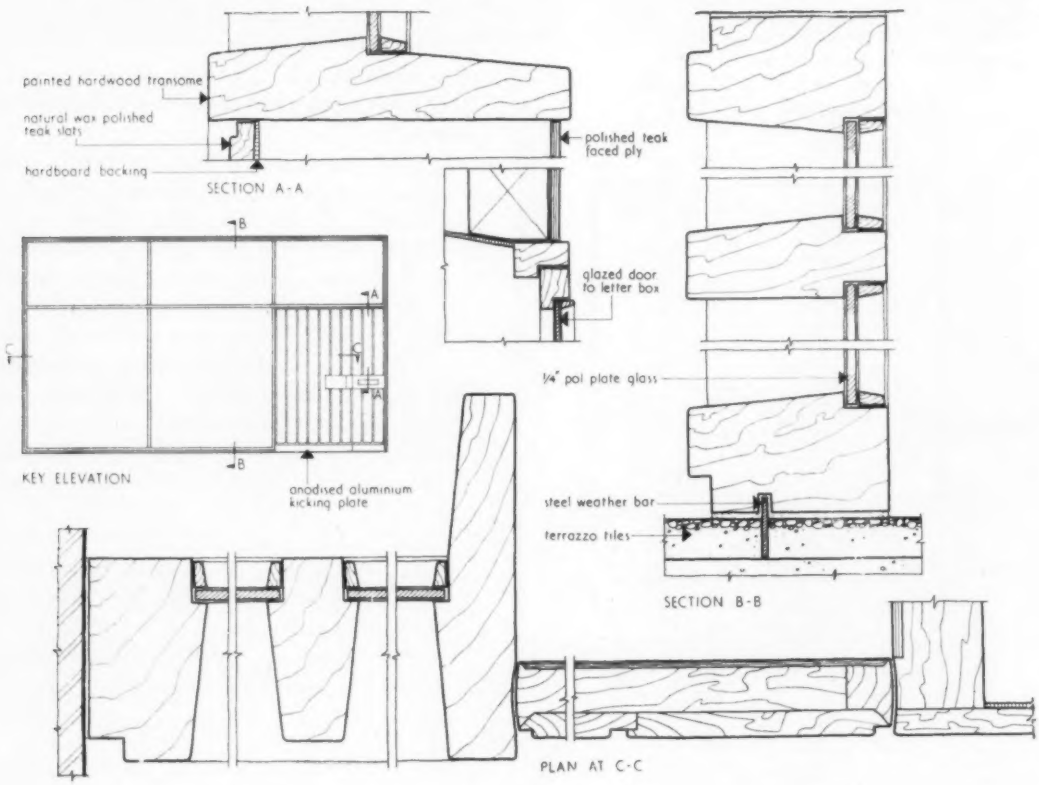
Hot water is obtained from a calorifier with immersion heaters for summer use.

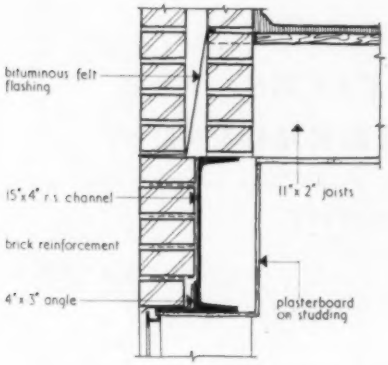
OFFICES AND WAREHOUSE, BIRMINGHAM



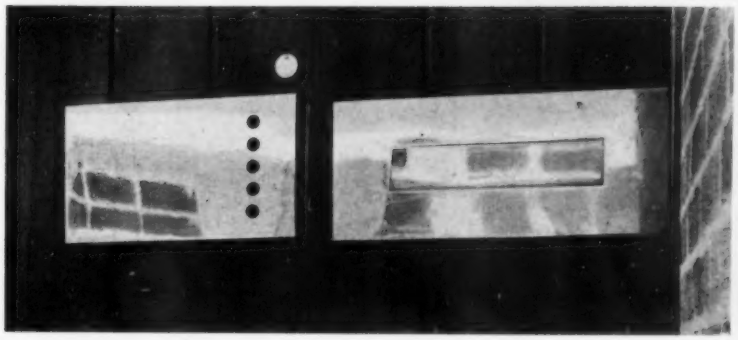
SECTION. SCALE: 1 IN = 8 FT

ENTRANCE DOOR DETAIL. SCALE: ½ F.S.





DETAIL "B." SCALE: ½ IN = 1 FT



Close-up of the door handle and letter box at the main entrance

quantity surveyor:
A. GORDON ROBOTTOM

general contractor:
MADDOX AND WALFORD LTD.

sub-contractors:

Asbestos Roof Sheeting: The Standard Patent Glazing Co. Ltd. *Asphalte (Tarmac Paving)*: Birmingham Asphalte & Paving Co. Ltd. *Bricks (Facing)*: The Himley Brick Co. Ltd. *Door Handles*: Craftmetals Ltd. *Electrical Installation*: C. A. Sothers Ltd. *Gates to Yard*: H. E. Breaker (Metalwork) Ltd. *Glass Domes*: The Standard Patent Glazing Co. Ltd. *Heating Installation*: Thos. Ash & Co. Ltd. *Ironmongery*: W. S. Neale Ltd. *Lavatory Cubicles*: Henry Hope & Sons Ltd. *Lettering and Signs*: Ward & Company. *Paint*: Imperial Chemical Industries Ltd. *Patent Glazing*: The Standard Patent Glazing Co. Ltd. *Pavings and Copings (Granolithic)*: Stuarts Granolithic Co. Ltd. *Plaster ("Carlite" Patent)*: The Gotham Co. Ltd. *Reinforcement (Concrete)*: Twisteel Reinforcement Ltd. *Roof Lining*: The Standard Patent Glazing Co. Ltd. *Sanitary Fittings*: The Griffin Foundry Fireplace & Sanitary Fittings Ltd. *Service Lift*: Hammond & Champness Ltd. *Slate Facings*: W. H. Fraley & Co. Ltd. *Staircase Balustrade*: H. E. Breaker (Metalwork) Ltd. *Steelwork*: Rubery, Owen & Co. Ltd. *Terrazzo: Marbolino Co. Ltd. Tiling (Plastic Floor)*: Semtex Ltd. *Windows (Steel)*: John Gibbs Ltd.

Above, the side entrance with its canopy; this entrance gives access to the Trade Counter. Left, the staircase inside the main entrance. The inside of the end wall is left unrendered brickwork and the staircase itself is plastered. Between the staircase and the glazed screen alongside the entrance doors can be seen a small planting trough

THE ARCHITECT and Building News,
29 November 1956

OFFICES AND WAREHOUSE

Bermondsey

Architects: WESTWOOD SONS & HARRISON

The main entrance elevation

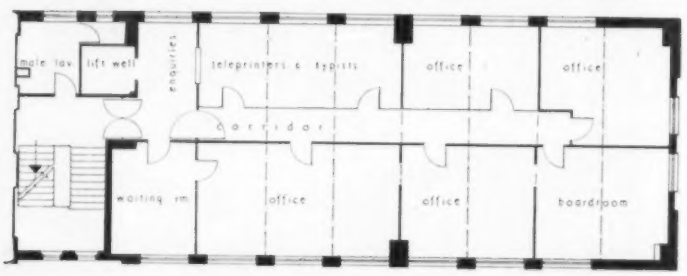
THE owners, McConomy & Co. Ltd., hide and skin brokers, required a warehouse and office accommodation on a site having a long frontage, but with a depth of only 30ft. Formerly, the site had been completely covered by a 3-storey warehouse which was entirely destroyed during the war.

The foundations of the external walls of the old building were in sound condition and it was decided, therefore, to have load-bearing external walls in "calculated" brickwork, with the intermediate floors carried by R.S.J.s spanning between front and rear walls. The old basement had been filled with rubble, but rolling with a heavy roller compacted this sufficiently to bear the strip foundations of sleeper walls which carry the ground floor warehouse slab. All floors have been calculated for a superload of 150lb per sq ft.

The main entrance, staircase, lavatory, kitchen and lift shaft are planned at the east end to leave the rest of each floor for warehouse or office use.

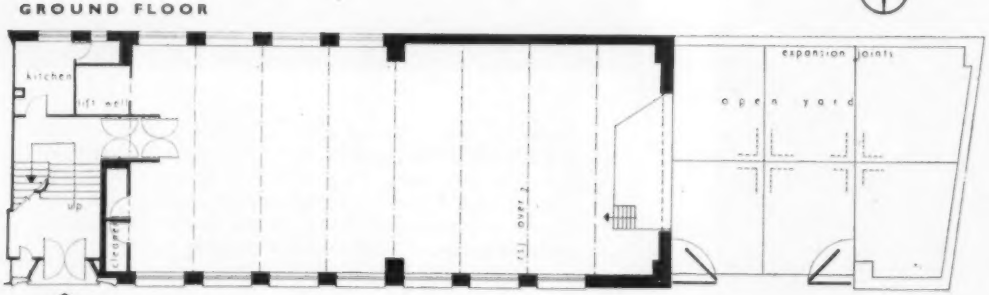
A concrete ground beam was cast *in situ* on the existing walls to even out the loading. The load-bearing external walls are built entirely in Uxbridge Flint bricks, but with *in situ* concrete "padstones" to take the ends of the R.S.J.s which carry the pre-cast floor units.

The north and west elevations are in red Uxbridge Flint facing bricks with a plinth

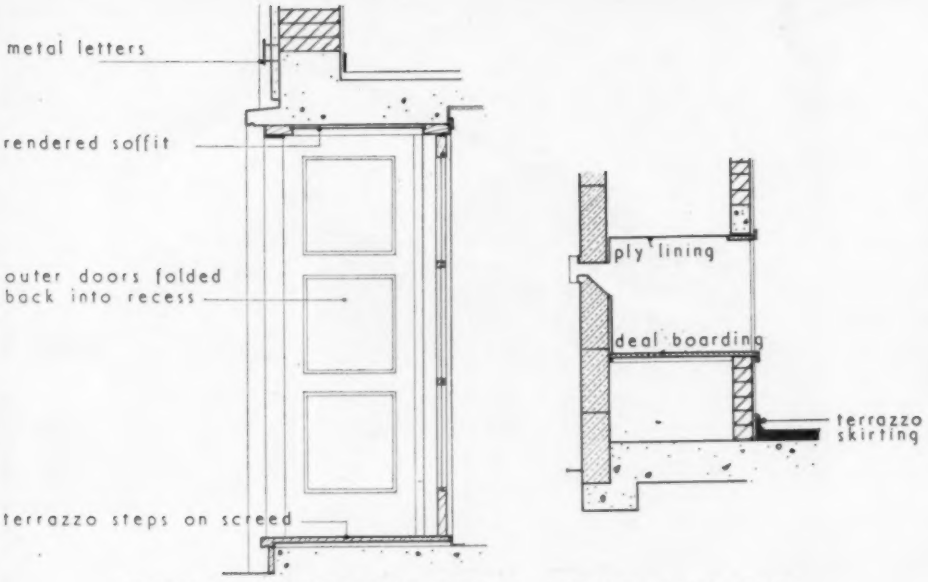


FIRST FLOOR

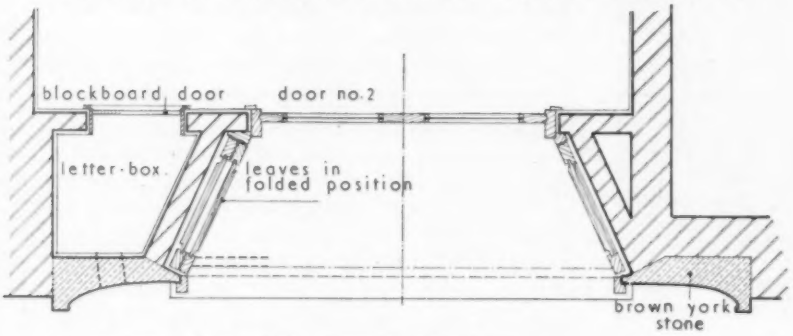
GROUND FLOOR



PLAN SCALE
1 IN = 32 FT



DETAILS OF ENTRANCE DOORS SCALE: 1 IN = 3 FT

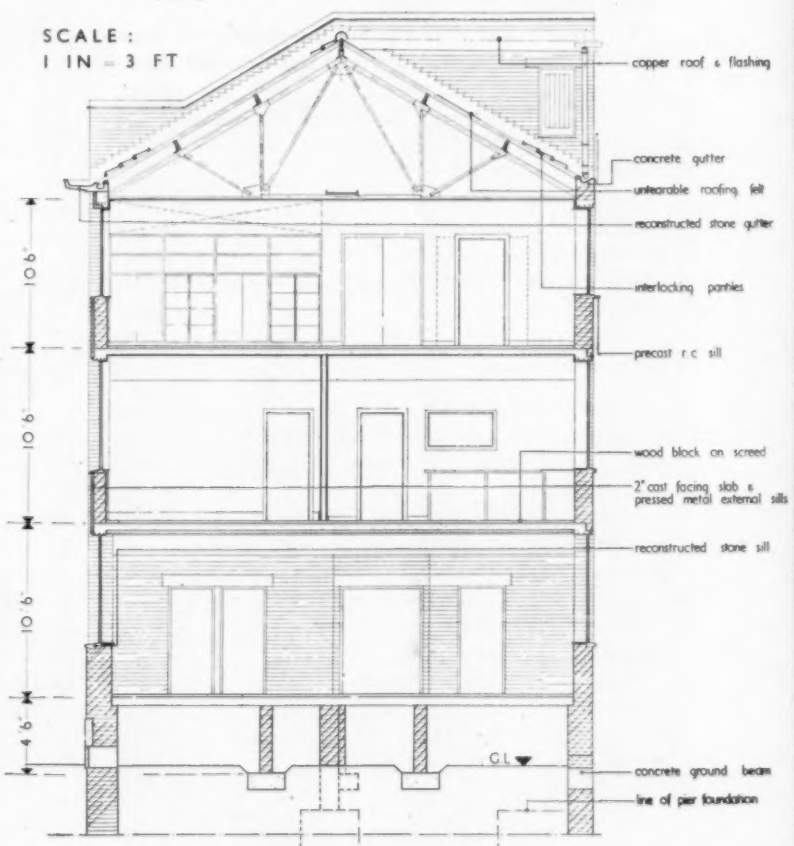


First floor corridor, showing office partitioning

in concrete slabs with exposed granite aggregate, and with precast facing slabs finished white Ellmore to the panels over window heads. The surround to the main entrance is in Brown York stone with solid panel outer doors and glazed panel inner doors in mahogany, planned to leave the maximum depth for the entrance lobby and staircase.

The small amount of foundation work coupled with the simple form of construction has resulted in low cost. After deducting the cost of external works in forming the yard, the remaining cost gives figures of 64s 3d per sq ft of floor area, measured overall within external walls, and 4s 4d per cubic ft measured from the top of the foundations to the sleeper walls.

general contractor:
L. & W. WHITEHEAD LTD.
sub-contractors:
Balustrading (Staircase): S. W. Farmer & Son Ltd. *Cement Glaze:* Modern Surfaces Ltd. *Doors (Flush):* John Sadd & Sons Ltd. *Electrical Installation:* Thomas G. Webster. *Flagstaff:* John Edgington & Co. Ltd. *Flooring (Granolithic):* Stuarts Granolithic Co. Ltd.; *(Wood Block):* Hollis Bros. *Heater (Electric Night Storage):* Thermodare (Gt. Britain) Ltd. *Ironmongery:* Nicholls & Clarke Ltd. *Lighting Fittings:* Merchant Adventurers of London Limited; Thorn Electrical Industries Ltd. *Sanitary Fittings:* John Bolding & Sons Ltd. *Shutter (Roller):* Shutter Contractors Ltd. *Stone (Cast):* Griling' Ferro-Concrete Co. Ltd.; *(York):* Wm. Knight & Co. Ltd. *Suspended Ceiling:* Anderson Construction Co. Ltd. *Roof Trusses (Steel):* S. W. Farmer & Son Ltd. *Terrazzo:* Malacarp Terrazzo Co. Ltd. *Tiling (Floor and Wall):* Cope & Co. Ltd. *Windows (Steel):* Haywards Ltd. *Window Cills (Internal):* Langley (London) Ltd.



NEW PRESTRESSING TECHNIQUE

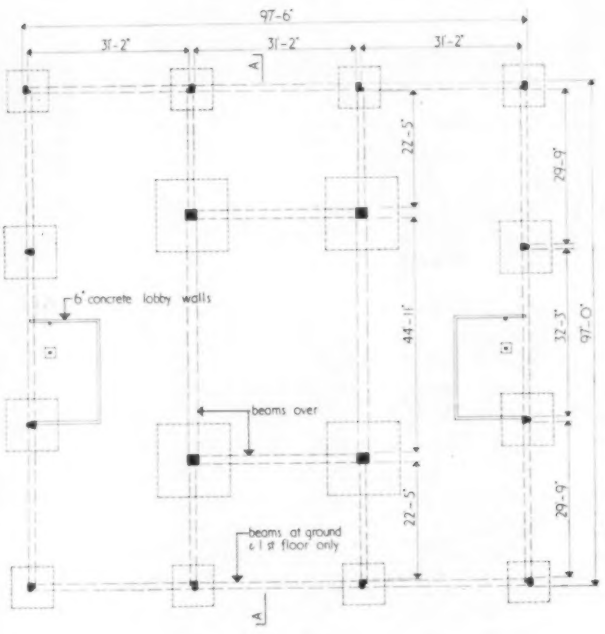
Factory extension for E. K. Cole Ltd. Southend

Above, a general view of the building under construction

THIS new technique in the use of pre-stressed precast concrete is being used in a factory extension now under construction for E. K. Cole Ltd., at Southend. The building is four storey and is to house the development and engineering department of the firm, manufacturers of radio, television and other electronic equipment.

Site concreting had to be reduced to a minimum because of restricted working space round the building, and large uninterrupted floor areas with constant ceiling heights were required.

The factory was designed for a superimposed floor load of 120lb per sq ft. The floor slabs are of hollow-box construction with closed ends (each unit weighs between 3-5cwt) and the lines of boxes forming the slabs terminate at solid end-anchorage blocks each two boxes wide; these blocks form in effect an upper flange to the beams. Beams and columns are fully interlocking to permit live loading at all connections, and the columns are prestressed to resist bending. The floors are 10in deep at the 32ft spans and 15in deep at the 46ft spans.



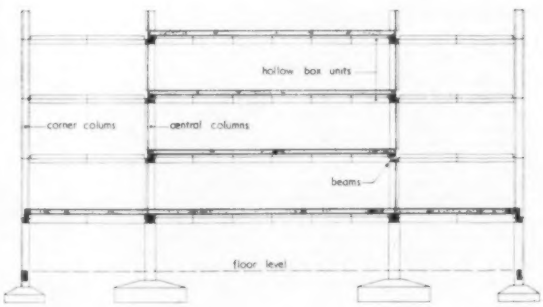
PLAN & SECTION. SCALE: 1 IN = 32FT

Construction

Foundations for the columns were placed on a clay base between 6ft and 8ft below ground level. Pockets were formed in the foundations to accommodate the precast columns.

All columns have hollow cores for sheathed prestressing cables and to reduce the weight for easier handling. With columns in position and cables installed, the projecting lengths of cable were held in a jig while the cores were filled with concrete. Poker-type vibrators ensured proper compaction.

While the columns were being erected the 18½in-deep beam elements were assembled, jointed, and stressed and grouted to form 25ft, 32ft or 40ft lengths. The beams were then lifted into position by two mobile



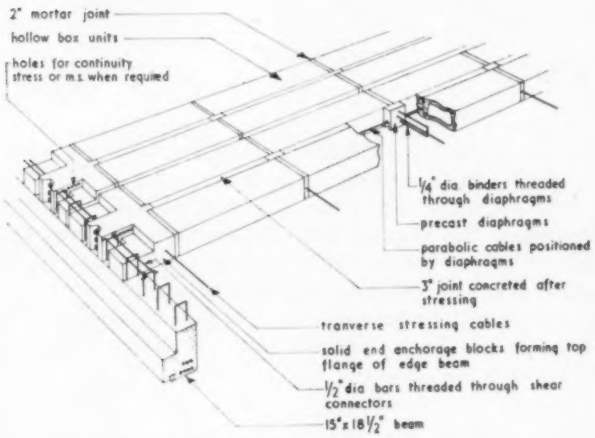


Diagram of the hollow-box construction

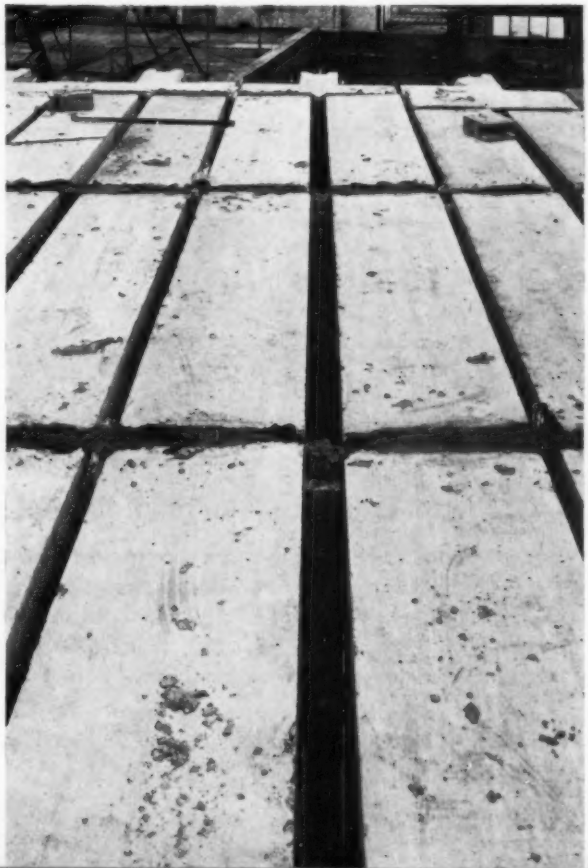
cranes and bedded with semi-dry mortar. Temporary adjustable steel props supported the beams while the floor slabs were being assembled.

The 6ft long by 15in wide hollow box elements of the floor were hoisted into position and assembled into slabs on tubular steel scaffolding. End anchor blocks were slotted to fit between shear connectors on the beams. (Special box elements, with holes for services to pass from floor to floor, were included where necessary.) Twin lines of boxes were laid out so that the scaffolding became the bottom form for the joints between the boxes. Before these joints were filled with mortar the transverse stressing cables, encased in a plastic tube, were laid in position across the whole width of the building. Precast diaphragms located between each line of boxes, and level with the joints, correctly positioned the cables in the joint. The diaphragms also ensured that the correct curvature was maintained for the high-tensile steel wires through which the longitudinal stress was applied. This stress was applied to the twin lines of boxes, through their common anchor block at each end, when the 2in mortar joints between the boxes were two days old. The 3in gaps between all the lines of boxes were then completely filled with mortar and two days later the transverse cables were stressed.

With the floor fully stressed two ½in diameter bars were threaded through the shear connectors on the beams to provide a permanent lock with the end anchor blocks of the floor units. The bars also interconnect each pair of end blocks. Recesses on either side of the anchor blocks located the bars below floor level. The dividing portions between the two recesses of each block were cast with four holes for continuity cables. These cables were inserted at each floor around the outside perimeter of the building and in the 46ft span direction across the four central columns. With the locking bars in position, and where necessary the continuity cables inserted and stressed, the recesses in the anchor blocks

Showing the solid end-anchorage block forming the top flange of the beam

A view of the slab construction from above

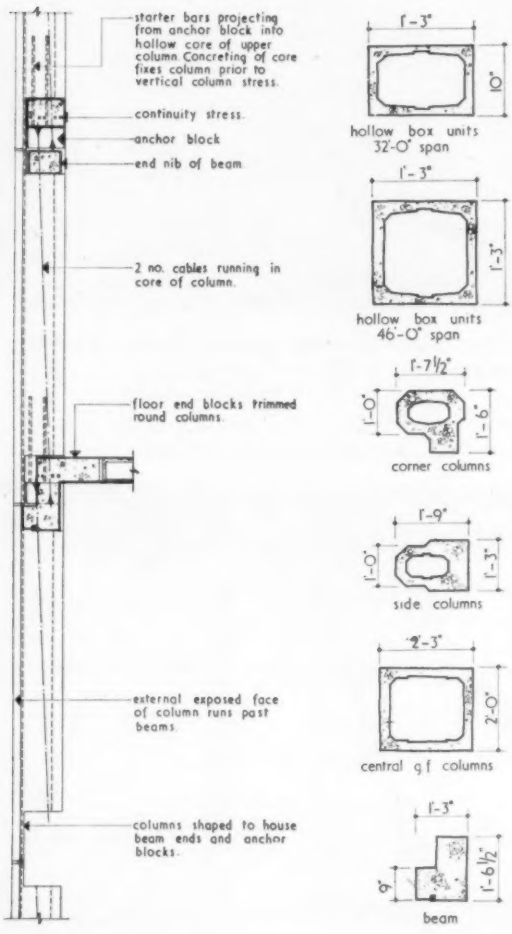


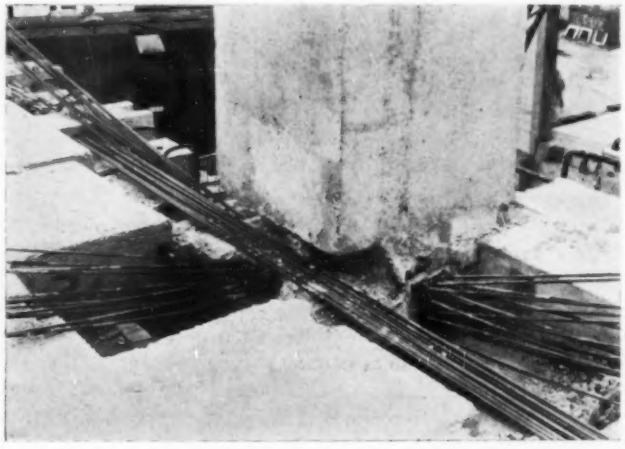
NEW PRESTRESSING TECHNIQUE

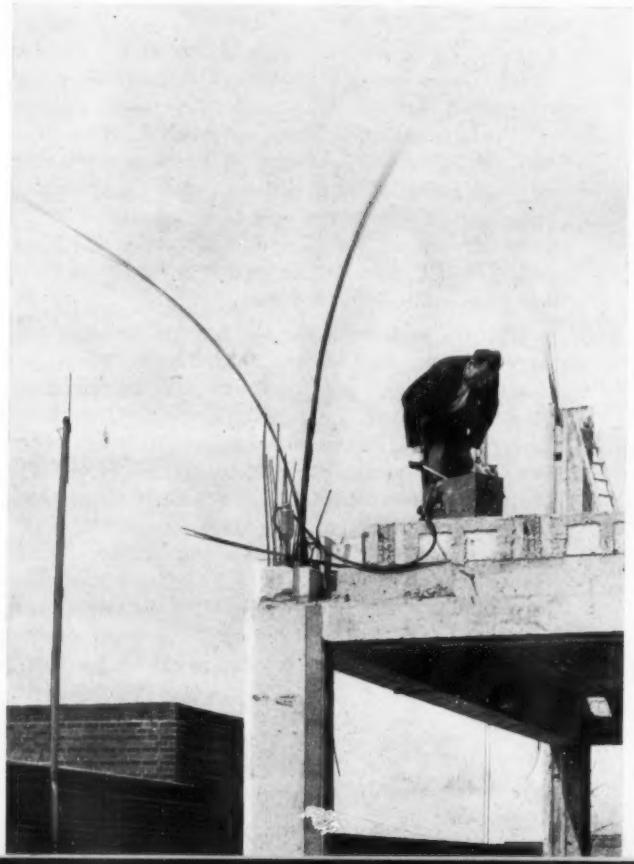
were filled with concrete. After this concrete had matured the temporary props were removed.

Before erecting next floor columns, beam ends were stressed to the existing column through an anchor block using the projecting column cables. The anchor block was also used to tie the next column in position: in this way a firm junction was ensured between the beams and columns. A 10in block of *in situ* concrete was then placed over the anchor block to raise the junction up to floor level and to provide an anchorage for the live-load-continuity cables from the beams.

The PSC One-Wire system of prestressing was used throughout the building with cables of four 0.276in wires. Guides for the cables used in the infilling *in situ* concrete at the beam and column junctions were precast in batteries of two, three and four anchorages. These guides made intricate wire and cable fixing unnecessary on the site.

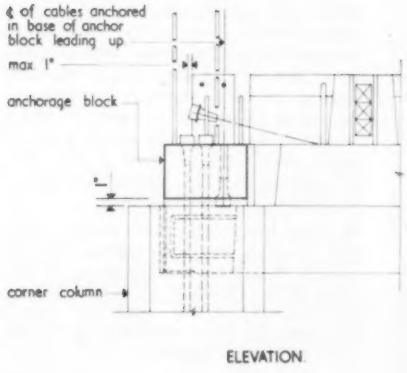




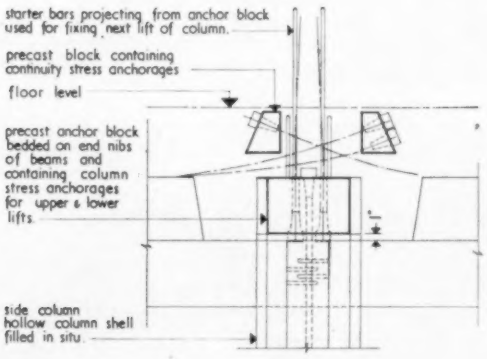


Above, section showing how a column is prestressed through the anchor blocks, and a series of sections through the floor units and columns showing the hollow cores. Above right, close-up of the base of a column, and lower right, column cables in the process of being tensioned with a jack

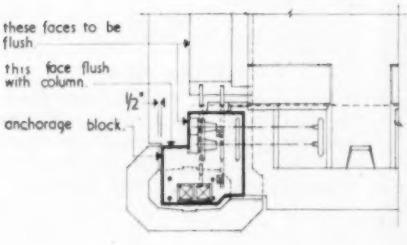
An anchor block being lowered into position over a column-head



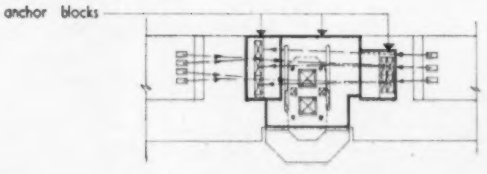
ELEVATION



ELEVATION



PLAN



PLAN

Plans and elevations of the junctions between columns and beams showing how all the post-tensioning cables are located

Industrial Notes

● Plans for a $100,000,000 investment in French West Africa have been announced in Montreal by Aluminum Ltd., and by its French subsidiary, Bauxites du Midi, in Paris. They are to create a bauxite and alumina industry to serve export markets. Since 1946 they have spent about $2,000,000 prospecting in French Guinea. The bauxite deposits now available justify the construction of a 75 mile railway to the Atlantic coast and the establishment of a plant to produce 250,000 tons of alumina a year. Construction will be completed within five years and thereafter capacity can be increased many times.

● At the 36th annual general meeting of Eastwoods Ltd., recently held in London, Mr. G. W. A. Miller, chairman and managing director made several interesting comments during the course of his speech. For the first time ever, the trading profits of the Group exceeded £1 million. The dividend on the Ordinary stock was maintained at 17½ per cent. The first of the new kilns at the Fletton brickworks at Orton, Peterborough, is nearing completion and it is expected that full output, to treble the production at this works, will be reached during 1957. Larger outputs of concrete tiles from Leighton Buzzard should be obtained by the spring and the concrete products works at Camberley and Shewalton will be fully equipped for the manufacture of spun pipes by the end of the year.

● The Incorporated Society of Auctioneers and Landed Property Agents held its Annual Dinner and Dance at the Dorchester Hotel, on November 8. Guests and members were received by the President, Mr. Howard Minter and Mrs. Minter and the principal guest was Sir Eric Errington, J.P., M.P.

● Straight beams, each 30ft long, produced by the Laminated Timber Structures Division of Kingston (Architectural Craftsmen) Ltd., of Hull, have been shipped over 3,000 miles to Bermuda. The beams, made up of seven laminae of Douglas fir bonded with resorcinal synthetic resin glue and varnished, were specified by the Salisbury Construction Co. Ltd., of Hamilton, Bermuda, for the Automotive Hobby Shop of the K.A.F.B.

● Kwikform Ltd. are holding an informal Exhibition of their new equipment, including unit frame scaffolding, Mark II wallformwork and road forms, at 66 Victoria Street, London, S.W.1. The exhibition will remain open from December 1 to 31 on all days from 10 a.m. to 5 p.m., with the exception of Saturdays, Sundays and Bank Holidays.

● Universal Asbestos Manufacturing Co. Ltd., of Tolpits, Watford, Herts, have just issued a new 12-page catalogue giving full technical details of their extractor ventilators. This follows the recent production of two revised catalogues describing standard 6in and 3in corrugated asbestos cement sheetings and appropriate fitments.

● Reyrolle & Co. Ltd. and C. A. Parsons Ltd., the Tyneside engineering concerns who are closely related, are planning to raise about £10,743,000. Reyrolle is offering 1,526,470 new £1 Ordinary shares on a one-for-two basis at 70s a share and Parsons 3,600,000 new £1 shares, basis one-for-one, at 30s each. Parsons will also issue a further 1,800,000 shares by way of a scrip issue. Treasury consent has been granted. Details will be sent out to Shareholders on November 30.

● The Midland Electric Manufacturing Co. Ltd. announce that their Publicity Department is now operating from new offices at Kings Road, Tyseley, Birmingham, where representatives should now call. The telephone no. is: Acocks Green 4031. All correspondence, however, should be addressed to the Head Office at Reddings Lane, Tyseley, Birmingham, 11.

● Johnson & Phillips are paying an interim dividend of 5 per cent compared with that of 7½ per cent which has been paid for the past seven years.

● Simon Carves Ltd. are raising their interim dividend for 1956 to 7½ per cent compared with last year's 5 per cent.

● Tanami Gold Mining Syndicate is acquiring the capital of Hailwood & Ackroyd, engineers and manufacturers of lighting fittings, on a share exchange basis. The Tanami capital is being increased from £37,500 to £171,500, the difference representing the purchase price. The new name is to be Hailwood Industries.

● Harris Lebus Ltd. show a profit after taxation of £272,928 for the year ended July 13. This is £25,515 down on the results of the previous year. Dividend is held at 9 per cent.

● The Crittall Manufacturing Co. Ltd. are showing a current increase in turnover, particularly on the export side. Sales overseas, in the year to August 31, reached the record figure of £1,800,000, against £1,650,000. The decline in the housing programme caused a falling-off in sales of metal windows but this was made good in other directions. Their grain silos, introduced in 1954, now constitute an important part of turnover.

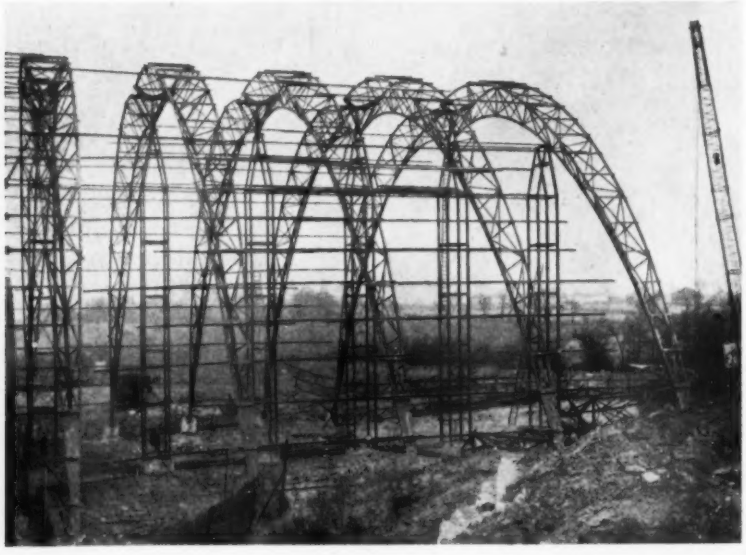
● Tube Investments Ltd. show a trading profit for the past year of £11,332,921 before deduction of tax. This is an increase of £2,806,334 on the results of the previous twelve months. A final dividend of 7½ per cent has been declared.

● Mr. Dion Lovell has been appointed Sales Manager of the newly formed Oil Division of Allied Ironfounders Ltd., 28 Brook St., W.1.

CORRECTION

The purpose of "Plastaweld" bonding fluid is to bond gypsum plasters and not gypsum plastics as was stated on page 596 of the A & B.N., November 1.

The 65ft high steel arches which adorned the Mall during Her Majesty's coronation are to form the main supports of a store at the Stowmarket factory of Stramit Boards Ltd. The store will house some 2,000 tons of baled straw. The arches are mounted on concrete plinths each 15ft apart and steel purlins fixed at 4ft 0½in centres to take 2in thick Stramit slabs which form the decking. Weathering will be felt, bonded to the Stramit with hot bitumen. Gable ends—Snaprib finished



Scottish Housing Handbook

AS mentioned in "The Leader" of November 1, the Department of Health for Scotland has issued a revised edition of Part 3, House Design, of the Scottish Housing Handbook (H.M.S.O., 4s 6d). It supersedes the 1952 edition of Parts 3 and 6 and the Appendix on Economy in House Building. Its purpose is to guide Local Authorities on the selection of house types for different kinds and sizes of family and on the design of houses and the minimum standards of sizes and accommodation.

The publication is a very nice production but, unlike its English equivalent, it contains no plans, which is an advantage in some respects but at the same time leaves some details described in the text somewhat hard to follow. It has some interesting photographs, certain of which are included as "awful warnings"; but, since photographs can be misleading in regard to colour and texture, it is regrettable that the architects whose buildings are illustrated have not been named, nor are the sites indicated to enable buildings described also to be seen. It may be that the Department was frightened to include the names as it would have to show also those of the architects responsible for the undesirable buildings.

Erection Generally

The document opens by summarizing the general objectives to be kept in mind in selecting house types and in preparing designs. There is considerable stress on the balanced provision of houses of different types and sizes suitable for the different kinds of families to be housed in one community. There is also stress on the need for good external design of houses and their grouping. It is suggested that the internal planning should make the most effective use of the available space, which incidentally seems to be on a small side, and also to provide rooms of suitable shape and size for their intended purposes, adequate storage space and easily run kitchens. It is pointed out that the standards given for space and equipment should be no less than the minimum specified for each size of family. It is also asked that the design and construction of the houses should enable them not only to be built but also to be maintained economically.

The Department suggests that good design cannot be achieved in a hurry and therefore the Local Authorities should give the designer sufficient time and the designer should avail himself of this time to achieve the best possible result. Designers are asked to have regard not only for the house proper but for the other structures which may be needed, such as external stores and garages, and to street furniture as there is little use in giving architectural expression to what will only be part of the requirement, if others less skilled are allowed to mar the designer's original concept when they provide the parts left over. It is suggested that the larger general stores now specified should meet the need that has hitherto been met by tenants building sheds for themselves, but the areas given do not in fact seem sufficient to achieve this aim. It is also suggested that the need for garage spaces is of increasing magnitude and needs to be considered from the start.

In a paragraph on economy of design there seems to be a very unusual suggestion that it may not always be necessary to obtain tenders in the normal way since it advocates that the designers should appreciate economies that may be effected by the use of mechanical equipment and the techniques of contractors who collaborate with them; such collaboration to be effective starts as collaboration on the drawing board long before tenders are invited. If this is so it would appear to cut across the instructions given to Local Authorities in other parts of this publication, in particular in Part 5 which deals with tenders and specifications.

It is good to see, in a paragraph on the subject of maintenance, that stress is laid on the point that the design, specification and construction have considerable bearing on the maintenance costs likely to be incurred during the economic life of a house and the further suggestion that the use of higher grade materials or items of equipment may result in worthwhile reductions of maintenance costs. Particular attention is drawn to paintwork and plumbing, which are said to be the most costly items.

House Types

The procedure for what are described as "normal house types" is set out in Part 7 of the Handbook and provided the standards in the Handbook are observed and a registered architect prepares the plans and supervises the building operations the Local Authorities are free to design without consulting the Department. This procedure, however, is changed if "special types" are being designed; these special types include flats, maisonettes, certain special categories of occupant and houses, to the design of contractors, which incorporate new materials or forms of construction about which the Local Authority may be in some doubt. From this mention of houses to the designs of contractors perhaps it may be assumed that the Department, unlike many associated with housing, would look with favour on the new forms of construction, particularly prefabrication.

The section on the selection of types stresses the need for diversity to provide for all groups in the community. The range of types, covered in the Tables in an Appendix, refers to a wider range than was incorporated in the previous editions of the Handbook. The Tables show in convenient form the several types which Local Authorities can adopt for the different kinds and sizes of family, and they indicate the overall areas within which it should be possible to design the particular types, while conforming to the minimum standards of accommodation. Emphasis is given to the use of flats of three storeys or more for families of adults and older children and for maisonettes in blocks of four storeys and more, since the building of cottage types results in relatively low density. The Department seems to have realized that there is the need for economy in land, roads and services which results from the use of higher densities.

There is an interesting paragraph headed "Standardization and external design". It suggests that if a Local Authority build houses to a contractor's standard design they cannot exercise the same control over the external appearance; on the other hand it is not made clear that there may be contractors' standard designs which are preferable to some designs which may be seen in Scotland, although the latter emanate from registered architects over whom the Department appears not to wish to apply any control. The paragraph continues with a recommendation that Local Authorities may (note it does not say "should") themselves adopt some measure of standardization in their house designs as a means of economy and then lists a number of items to which it suggests standardization could be applied as a means of contributing character to building. It further suggests that it would not be extravagant to spend much time on the careful design of standard parts. It does not, however, suggest, as perhaps it should, that there are available on the market well-designed standard parts, the use of which should be considered as a means of providing even greater economy than

Scottish Housing Handbook

could be achieved by designing special standards for one comparatively small housing scheme.

Points of Detail

On the subject of elements of external design the Handbook points out the obvious point that "housing schemes can be marred by lack of attention to points of detail". It continues by suggesting that traditional Scottish houses conform to a more rigid discipline in design than modern houses, which is a statement which might well be queried. It suggests, however, that in those few modern schemes where there is an equally strong and simple handling, the result has been attractive, as shown in a number of the illustrations. Stress is laid on the undesirability of having different design standards for the various elevations of any one building!!! It appears that the Department prefers to have simple gabled roofs with dormers "since these are usually attractive". It does not suggest that well designed and watertight dormers are apt to be somewhat costly. It suggests houses with flat roofs may be cheaper to build but that they may be more costly to maintain.

Windows and Doors

In a paragraph on windows and doors is suggested that if large orders are given the use of the "as yet non-standard square window, horizontally hinged", might prove economical as well as convenient. It is doubtful whether there is any more economy in placing large orders for this type of window than there would be by placing large orders for other types and, incidentally, this type of window is often inconvenient in relation to the hanging of curtains and the fixing of blinds and of doubtful ventilation value on exposed sites. The need for wide entrance doors is suggested "as providing dignity"; surely the real reason for wide doors is to get the furniture in.

The considerable section on the standards for sizes of accommodation, together with the Appendix which sets out these sizes, is interesting as it has a number of rather new points. The tendency appears to be an increase of minimum areas, although these still seem to be rather smaller than those required in England, which are well-known to be smaller than is desirable and are dictated in order to keep rents within the tenant's capacity to pay, because rents are related to similar accommodation constructed long ago. What may not be appreciated is that a slight increase in floor areas has only a very small influence on the cost of building, since such costly items as plumbing, equipment and chimney stacks remain generally constant quite regardless of the size of the house.

Among the general aims set out for internal design is the need to provide the greatest possible amount of living and sleeping space within the given overall areas, to provide pleasant and healthy living conditions and to save labour and inconvenience to the occupants. Particular attention is drawn to the need to provide for the occupants privacy and to ensure that there is adequate and accessible storage space. It suggests that the customary arrangement of all rooms opening from a hall, lobby or passage is not necessary or even the most desirable and then suggests arrangements which are better, including the opening of kitchens directly from living rooms, in small houses the opening of the bedroom off the living room and even in some houses with two or three bedrooms, for the main bedroom to open off the living room; these arrangements appear to discount completely the desirability of privacy and the need to prevent noise penetrating to all parts of the house. It further suggests that heating is impaired if there are too many doors or if the windows in rooms are too big. Paragraphs are given on the subject of kitchens and their arrangements, which incidentally are illustrated, to assist in the provision of better facilities. Minimum requirements for the amount of equipment to be provided in kitchens is set out which seems to be on a more generous scale than is normal in England.

Bedrooms and Bathrooms

In regard to bedrooms there is a welcome insistance on the provision of sufficient storage space for clothes and a requirement for built-in fittings to be of adequate size, including a cupboard depth of 2ft; incidentally it does not say if this 2ft is a clear internal dimension or an overall dimension. Stress is laid on the importance of the shapes of bedrooms and the arrangements of their doors and windows; minimum requirements for the amount of furniture to be accommodated are laid down and designers are asked to test that the requirements can be met. It seems to be suggested that all W.C.s should be included in bathrooms. It is recommended that plumbing stacks should be readily accessible from internal ducts as a means of improving external appearance and minimizing damage by frost, both of which are excellent points.

Storage

In regard to storage it is asked that larders should be "insulated" and adequately ventilated. No clue is given as to what is intended by the use of the word "insulated". It is regrettable to see that it is only "preferable" to provide one cold shelf. It asks for fuel stores to be accessible from within the house but that fuel should be delivered from outside. Nonetheless the Handbook finds that outside fuel storages placed near back doors are cheaper and save space but they are not to be placed at the back if the only access is through the house. There is a recommendation that there should be a place for hanging coats in the entrance hall, preferably in a built-in cupboard or conveniently placed racks that will take hangers; the racks or hangers, however, should not be placed in passages whose width is no more than the normal 3ft.

It is suggested that since linen cupboards need to be perfectly dry they should not be on an external wall nor in the bathroom or kitchen. There is a requirement that general storage must be provided for in all houses; in houses for one or two persons 20 sq ft is required and for other houses not less than 40 sq ft, exclusive of space for fuel but inclusive of pram space and storage of brooms, etc. It suggests that in cottages or other ground floor dwellings part of the required storage may be outside but part should be within the house. Where houses for three or more persons are on upper floors the storage space is to be divided to give about half within the house and the remainder at ground level.

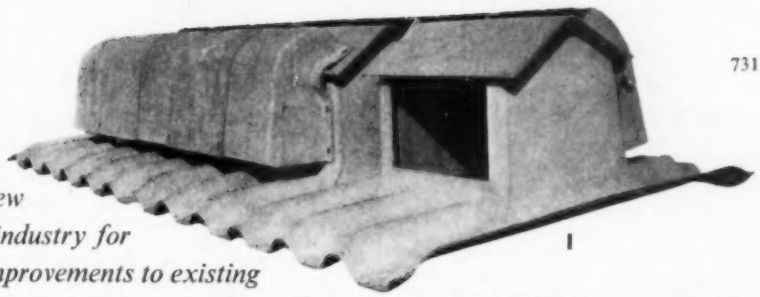
Specific requirements are given for the width of circulation spaces, such as corridors, and for staircases. It is stressed that it is desirable to avoid winders and that there should always be room to carry furniture up and down stairs; it is questioned whether the given widths really meet this requirement adequately. Several paragraphs, together with illustrations, are devoted to balconies.

The section on functional efficiencies deals with heat insulation, avoidance of dampness through condensation, ventilation, sound insulation, fire precautions and refuse disposal. Recommendations that contain much sound advice are made under each heading and these are further simplified in appendices setting out quite clearly the gradings of each form of construction.

DUTCH UNCLE

NEW PRODUCTS

In this feature are reviewed new lines introduced to the building industry for the first time and additions or improvements to existing ones. Any advantages claimed for a product are from information supplied by the manufacturer



1

A new continuous type ridge ventilater made from asbestos cement, Fig 1, has been developed by Universal Asbestos Manufacturing Co. Ltd. Intended for use on low-pitched roofs, a box upstand is moulded integrally with a standard 6ft troughing crown unit. A cranked roof piece rests on top of the upstand and channelled deflectors are fixed to both sides. Intermediate deflectors link the ventilators in series to give an unbroken roof line. The crown unit is fixed to purlins in the normal way and the roof piece and deflectors are ready drilled. Makers state that provision should be made for adequate air intake at a low level, by either controlled inlets or opening windows and that the allowance should be for an intake of twice the volume of possible outflow.

Universal Asbestos Manufacturing Co. Ltd., Tolpits, Watford, Herts. Gadebrook 4551.

★

The Alcon 1½in Disc Pump, Fig 3, is now available as an electric model. It is intended for dealing with water containing abrasive material, solids in suspension, mud and liquid manure. It consists of a cast iron pump chamber on which is mounted a ½ h.p. squirrel cage induction motor driving a worm gearbox, which in turn transmits the motion through a linkage mechanism to the pump spindle. Weight, 170lb; output, 1,200galls per hour. Max. total head and suction lift, 20ft.

Arthur Lyon & Co. (Engineers) Ltd., 6 Carlos Place, London, W.1. Hyde Park 9141.

The Tomo pleated blind, which for some time has been used between the panes of Tomo double glazed windows, is now available for use with single glazed windows, Fig 2. It is translucent and is made from specially developed cellulose fabric. Operated by terylene cords, the blind can be made to suit any size of window from 2ft wide by 3ft high upwards.

T. F. Sampson Ltd., Tomo Trading Estate, Stowmarket, Suffolk, Stowmarket 564.

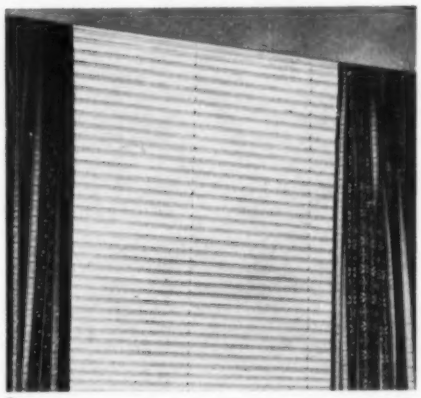
★

The new Merton convector fire, Fig 4, has been designed for the heating of rooms up to 1,700 cu ft in size and for the burning of all types of solid fuel. Makers claim that it will fit any size opening not less than 16in wide by 20in high, without disturbing the back brick. A safety plate which hooks on to the front bars and gas ignition are optional extras. The fire has a low front and specially shaped refractory bricks to give high temperature at floor level. It is claimed to be economical in fuel consumption. Available in several colours of mottle and lustre vitreous finish.

Hattersley Bros. Ltd., Queen's Foundry, Swinton, Mexborough, Yorks. Mexborough 2332

★

New colours are announced by English Electric Co. Ltd for their domestic appliances. Washing machine table top lids and food mixers can be supplied in lavender, aquamarine, candy pink, or grenadier red. The



2

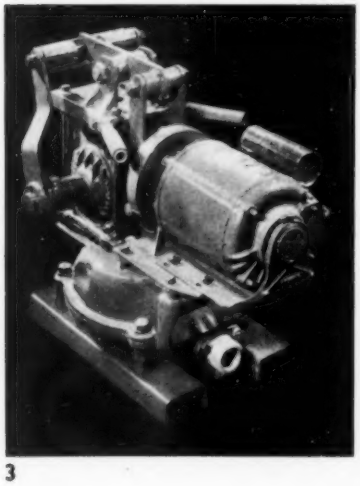
door of the EA-83 refrigerator is now made in the first three and the hob of the 2020 cooker in the first two of these colours. Cream and white finishes are still available.

English Electric Co. Ltd., Marconi House, Strand, London, W.C.2.

★

The Empress Mark II, Fig 5, is a paraffin burning convector type space heater. Performance figures claimed are that it consumes one gallon of oil in 30/36 hours and has an output of 4,500 B.Th.U/hr. Overall dimensions are 29½in high by 10½in. deep by 16in wide and the appliance is finished in bluish grey with maroon grille and plinth.

Flora Stove & Hardware Co. Ltd., 56 Waldegrave Road, Teddington, Middlesex. Molesey 2122.



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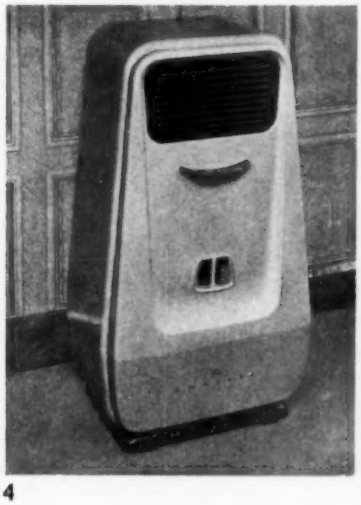

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5

New Products

Raised nose pillar cocks are the latest addition to the "Easilyne" range of plumbers brassfoundry. They are available in two sizes, ½in (no. 5341 ELM) and ¾in (no. 5341 ELMI), the former for basins and the latter for baths, Fig 6. The ½in tap has an upstanding head and the ¾in, an inclined one to allow for easy opening where space is limited between the tap and the wall or partition behind the bath. In designing these taps, which have been accepted by C.O.I.D., makers have endeavoured to make it possible for the water to drain away completely after the tap has been closed. Finish is in chromium plate.

Sanbra Ltd., Aston Hall Road, Birmingham, 6. East 1231.

★

The Angula mechanical straight-edge for use on drawing boards, Fig 7, has been produced from specially treated light-weight alloy. During manufacture it is extruded to shape, allowing for a cut-away portion under the blade to give minimum paper contact. The full length of both edges is slotted to allow clear plastic strips to be fixed to the alloy, which, after machining, form the drawing edges.

Angula Engineering Co. Ltd., Glaskin Mews, Pembury Road, Clapton, London, E.5. Amherst 5665.

★

Aluminium framing and components for their architectural lighting system have now been introduced by Lumenated Ceilings Ltd. in addition to the steel framework now being supplied. The weight of the track is reduced from 12 to 5oz per sq ft, and the width to less than 2in, whilst its exposed soffit has a rippled or fluted pattern on its polished surface. The new track and components are illustrated, Fig 8. In the top left hand corner is shown how corrugated vinyl sheet is positioned on the track by means of plastic spring clip. Top right shows similar track from different view and including hanging bracket. Top centre shows the side wall bracket which screws into the channel of the track on the right and holds it flush to the wall. In centre of picture are concealed track connectors used to joint together two lengths, of the track. Bottom right shows a further side wall bracket which can be bolted to the hanger bracket. The adjustable hanger is shown in the foreground; two of these are normally used together and are joined at the corrugated ends by bolts. One flanged end is then fixed to the ceiling, the other being fixed to the hanger bracket. The flexibility of the Lumenated ceiling has been increased by these new components and as well as providing a system of wall-to-wall lighting or alternatively with a perimeter surround of hardboard or other panelling, it can now be obtained as single panels for suspension under fluorescent tubes or tungsten lamps. Acoustic baffles which can be used in conjunction with the ceiling, without requiring additional space in the horizontal plane, have also been added.

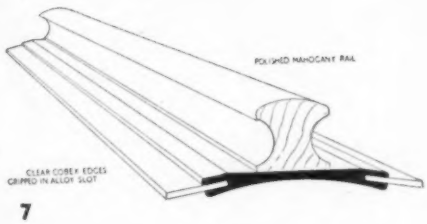
Lumenated Ceilings Ltd., Alliance House, Caxton Street, London, S.W.1. Abbey 7113.

★

A panel of special, hard-wearing grade, concrete for space heating purposes, called a Thermax panel has recently been introduced. The panel stands on shallow legs slightly above floor level and its corners and arrises are rounded. The size of the panel is 2ft by 2ft by 2⅝in and weight is 70-75lb. It is portable and can be re-positioned to suit revised production, layouts. It operates on low voltage supplies through transformers; voltage is primary, 200-250 volts, A.C. mains; secondary 9-12 volts, loading 70-100 watts. A low voltage transformer is supplied complete with 8ft of insulated lead to connect mains with panel through the transformer. Transformers can be supplied to feed current to several panels simultaneously if required. The heating element is permanently bonded into the panel and is backed with insulation material.

Marley Concrete Ltd., Peasmarsh, Guildford, Surrey.

6



7

★

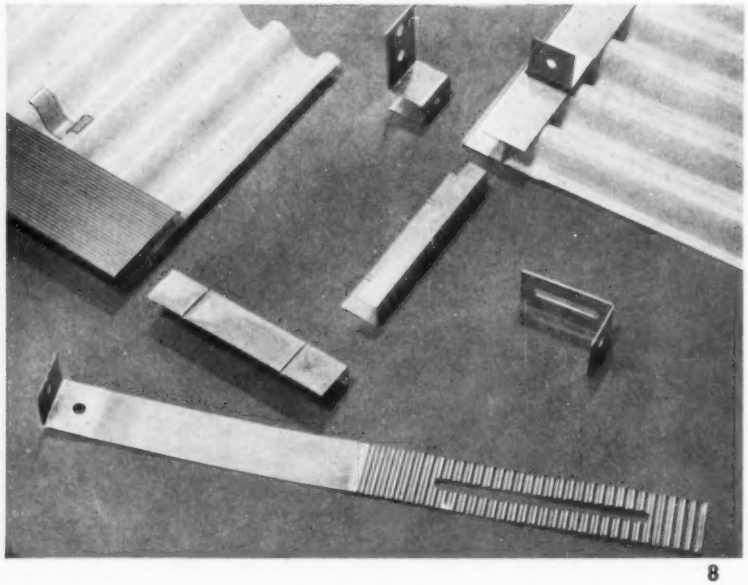
The new "Agseat" is simply an ordinary standard ballvalve seating which has been permanently tipped with agate. Makers guarantee that the Agseat is unaffected by the following: electrolytic or chemical action, the cavitation of seatings due to the impact of bursting air bubbles, frictional wear, particularly on high pressure installations and organic spores or fungi. Manufactured in accordance with B.S.S. 1212/53, the seating has been accepted by B.W.A., M.W.B. and other leading Water Authorities and is available in all standard English and metric sizes for ballvalves to B.S.S. 1212 and is also supplied already fitted to ordinary M.O.H. pattern valves.

Agate & General Stonecutters Ltd., 25 Hatton Garden, London, E.C.1. Holborn 0229.

★

Wemyss Woodhouse Ltd. have introduced a double draining sink board in Cellobond glass reinforced polyester resin. This follows the single draining unit announced earlier this year. The new board measures 63in by 21in and makers claim for it the same properties of resilience, resistance to chipping, heat retention and quietness in use as for the single board.

Wemyss Woodhouse Ltd., Talbot Road, Rickmansworth, Herts. Rickmansworth 5650.



8

CURRENT MARKET PRICES (LONDON)

(These prices apply to material purchased in the quantities named or otherwise as might be expected for a new building of moderate size.)

29th November, 1956

AGGREGATES AND SAND

1½in—all in—ballast	24/–	Yard cube
¾in do. do.	26/–	delivered
¾in screened shingle	21/9	(in five yard
⅜in do. do.	22/9	loads or
¼in granite chippings	52/–	more)
Sharp washed sand	24/9	
Pit sand	22/6	
Building sand	22/6	
Broken brick	20/3	
1½in shingle	20/9	
Cartage of muck	8/6	

BUILDING MATERIALS AS DESCRIBED, CENTRAL LONDON

CEMENTS packed in paper bags	Per ton
Portland in 6ton lots	104/6
Do., from 1ton to 5ton 19cwt do.	116/6
Do., Rapid hardening (6ton lots)	115/–
Do. (but 1ton to 5ton 19cwt)	127/–
Cement "Aquacrete" (do.)	149/–
Do., "417" or "Polar" (do.)	149/–
Do., "White" 1ton (lots)	265/–

LIME—	132/– (1ton loads) deliv'd		
Hydrated including	129/6	(2/3 do.)	do.
Grey bags	119/6	(4/5 do.)	do.
White Lime 7/6 extra per ton			

PLASTER—	
Keenes, coarse, pink (2ton lots)	219/6 ton
Do. do. white (do.)	225/– do.
Sirapite, do. (2ton to 3ton 19cwt lots)	158/3 do.
Do. finish (do.)	166/3 do.
Hardwall, do. (do.)	169/9 do.
Plaster, coarse, pink (do.)	156/6 do.
Do. do. white (do.)	166/– do.
⅜in Gypsum Plaster Lath (600sq yds)	2/4 sq yd
⅜in Do. do. Wallboard do.	2/7 do.
3½in Jute scrim (100yd roll)	8/7 each
Cow hair (under 3cwt)	97/6 cwt

FIRECLAY—	
Stourbridge, loose (1ton lots)	176/9ton delivered
Fire cement	12/3 14lb

BRICKS

BACKING BRICKS (in truck loads)—			
Flettons	115/– per	1,000	delivered
Do. Keyed	117/–	do.	
Do. bullnose	145/–	do.	
Blue wirecuts	530/6	do.	
White	197/–	do.	
Southwater engineering (No. 1)	382/–	do.	
Firebricks—2½in	77/– per	100	delivered
Do. —3in	90/9	do.	

STOCK BRICKS—			
Mild stocks	181/6 per	1,000	at Works
Second, do.	236/–	do.	
First, do.	257/–	do.	
Add for delivery—approx. 45/– per 1,000 in lorry loads			

FACINGS (ex truck or lorry)—			
Rustics	145/– per	1,000	delivered
White	220/–	do.	
Blue pressed, 2½in	587/–	do.	
Do. bullnose	601/–	do.	
Reds (Multi sand faced)	320/–	do.	
White glazed stretchers	1600/–	do.	
Do. headers	1575/–	do.	
Do. bullnose	2000/–	do.	
Do. double stretchers	2125/–	do.	
Do. double headers	1937/6	do.	
Breeze fixing bricks	32/– per 100		
Fire tiles and lumps	33/– ft cube		
Wall ties—8in by ¾in by $\frac{1}{16}$in, black	85/– per cwt		
Cement mortar (1 : 3) hand-made	92/– yd cube		

BRICKLAYERS' SUNDRIES—

AIR BRICKS	9 by 3in	9 by 6in	9 by 9in	12 by 9in
Iron each	2/1	3/5	5/2	6/10
Galvanised do. do.	3/9	6/–	9/–	12/–
Terra Cotta do.	1/3	2/7	5/6	10/10
Chimney pots, Terra Cotta (11 to 25)do.	1ft 7/7	2ft 13/4	3ft 30/3	4ft 51/5

PARTITIONS—

18in by 9in Blocks keyed for plastering

Per yd super in 6ton lots	2in	2½in	3in
In solid clinker including any half blocks	3/9	4/4	5/3
In cellular clinker blocks	3/11	4/7	5/3
In hollow clay blocks	4/5	4/8	5/5
Clinker blocks in small quantity	5/7	6/7	7/11

Intermediate quantities in all types may be had at intermediate prices.

Smooth in lieu of keyed faces extra cost per side 3d. per yd super

SINKS—

Fireclay white glazed in and out—standard quality

	24 by 18in	30 by 18in	30 by 20in
London pattern, no overflow, 6in deep	69/6	86/6	96/–
Belfast, plain edge, 10in deep	83/3	137/6	185/6

FLUE, LININGS, PLAIN, CIRCULAR (FIRECLAY)—

	Foot lineal Straight	Each Bends
9in diameter	4/2	12/6
10in do.	5/3	15/9
12in do.	10/–	30/–
9in diameter, beaded end, 12in high		5/7

FLUE PIPES AND FITTINGS—

	4in	5in	6in
Heavy asbestos type, 6ft length	16/6	22/–	28/–
Do. 3ft length	8/3	11/–	14/–
Do. bends	6/2	7/10	9/4
Light asbestos type, 6ft lengths	13/6	17/–	22/–
Do. 3ft length	6/9	8/6	11/–
Bends	4/10	6/1	7/5
Baffler	13/4	15/10	16/8

DRAINAGE GOODS

GLAZED STONEWARE STANDARD LIST

	4in	6in	9in
ORDINARY TYPE—EACH			
Pipes in 2ft lengths	1/8	2/6	4/6
Bends	2/6	3/9	10/1½
Junctions (4in on 4in, 6 in on 6in, 9in on 9in	4/2	6/3	13/6
Gullies with 4in outlets	6/3	6/10½	11/3
4in horizontal inlets	2/–	3/–	5/–
4in vertical do.	3/–	4/–	7/–
Black iron grids	9*d*	1/5	2/9

Adjustment to Current Cost

	2ton lots or more	Less than 2ton lots: 100 pieces or more	Less than 2ton lots: Under 100 pieces
"Best" pipes and fittings. Percentages to add	85%	117½%	130%

Further percentages to be independently added in respect of: British Standard pipes, etc., 10. "Best" Tested pipes, 37½. British Standard Tested, 47½.

IRON DRAINAGE GOODS—

Each	4in	6in
Cast iron pipes, 9ft long	73/3	110/9
Do. 6ft do.	54/–	83/10
Do. 4ft do.	41/7	64/10
Do. 2ft do.	25/5	38/5
Short bend	17/6	46/3
Junction	31/–	64/8

CURRENT MARKET PRICES (Continued)

DRAINAGE GOODS—Continued

GULLEY PARTS—	4in	6in	
Traps, high level, invert	31/-	84/-	each
Inlet, bellmouth pattern	16/5	32/-	do.
Do. with one vertical branch	28/6	53/5	do.
Do. with two do.	77/2	113/3	do.
Extra for Sealed cover	9/11	12/8	do.

RAINWATER SHOES	4in	6in	
With vertical inlet and rebated top ..	40/7	80/9	each
Extension piece, 6in high	21/5	21/5	do.
Flat loose coated grating	4/3	4/3	do.
Loose solid coated cover	5/7	5/7	do.

MANHOLE CHANNELS, WHITE GLAZED— Each	4in	6in	9in
Straight, 2ft long	16/6	24/3	40/9
Taper, do.	27/6	27/6	41/9
Bends, main, half section	32/-	46/3	76/-
Do., branch, do.	19/9	27/6	—
Do., do. three quarters, do.	27/6	44/-	—
Junctions, single	26/6	46/3	—
Do., double	36/3	62/9	—

BROWN GLAZED CHANNELS— Based on standard list (less than 100 pieces)	4in	6in	9in
Half-round main channel (2ft long) ..	2/9	4/2	7/4
Extra for stop ends	2/9	4/2	7/4
Extra for outlets	5/5	8/2	—
Channel bends with splayed ends ..	8/2	12/3	—
Three-quarter section do.	10/10	16/4	—

MANHOLE COVERS—	Black
24 by 18in Light foot traffic	30/- each
Do. Strong do.	53/6 do.
Do. Light car traffic	107/- do.
Do. Road traffic	160/- do.

SUNDRIES—	Galvanised	
Manhole steps	8/6	each
4in Mica valve fresh air inlets ..	14/6	do.
Plumber's hemp	7/3	per lb
Gaskin, caulking	1/5½	do.
Canvas backed hair felt, 4in wide ..	9*d*	per ft run

ROOFING MATERIALS

WELSH SLATES (delivered)— Sizes in inches	Full Loads per 1,000	Quantity 100 to 499 per 100	1 to 99 per doz
22 by 11	2070/-	280/-	37/-
20 by 10	1839/-	250/6	33/-
18 by 10	1287/-	173/6	23/-
16 by 10	1020/-	138/-	18/3
14 by 9	670/-	95/9	12/9
14 by 4½	335/-	42/9	5/9

TILES (Brosley and Staffordshire)—	per 1,000	per 100
10½in by 6½in Machine made	330/-	40/-
Do., hand made, sand faced	406/-	49/-
Hips, valleys and angles	33/- per dozen	
Plain concrete tiles	per 1,000 177/-	per 100 19/6

Sheeting asbestos corrugated, 6in pitch ..	7/4¾ yd super
4½in by 16 gauge, drive screws (galvanised) ..	17/9 gross
7½in by ⅜ hook bolts and nuts (do.) ..	51/6 do.
Washers, round, flat galvanised	4/9 do.
Do. do. bituminous	2/- do.

ROOFING FELT—	
Sanded bitumen felt (55lb)	1/- yd super
Do., but 75lb in weight	1/6 do.
Inodorous felt, best quality	3/- do.
Do., second quality	2/4 do.
Underlining	1/8 do.
Sheathing	1/8 do.
Galvanized felting nails	2/- lb

THERMAL INSULATION—				
¾in Insulating	Gypsum	Baseboard	(600sq yds) ..	3/-sq yd
⅜in Do.	Do.	Lath	do. ..	3/- do.
½in Do.	Do.	Wallboard	do. ..	3/10 do.
½in Do.		Fibre Board	(100sq yds) ..	4/3 do.
½in Do.		Cork Slabs		7/6 do.
	Silicate Cotton (2ton lots)			2/2½ft cube

STONE

PER FOOT CUBE in random blocks not exceeding 20ft cube in each, free on rail London.
Monks Park 8/1½ St. Aldhelm 9/1½
Portland brown Whitbed 8/5
Other stone but delivered to sites. Doulting 8/11, Beer 8/5

TIMBER

Softwood—sawn—random lengths.

	Per standard	Per cubic ft
Carcassing quality	£105	12/8
Joinery quality	£125 and up	13/4

Plain edged unsorted flooring, per square	¾in	1in	1¼in	1½in
	90/-	110/-	138/-	165/-

5/16in Hardboard (250yd) 5/8 sq yd.
Larger quantities cost less, and smaller quantities more.

SUNDRIES—	Dia.	3in	6in	9in
Black hexagon bolts, nuts and washers. Each	¼in	6½*d*	9*d*	11*d*
	⅜in	9½*d*	1/0½	1/1
	½in	1/2	1/6	1/10
Sashline, hemp, good quality Per Yd Run		No. 6	No. 8	No. 10
		9½d	1/1	1/4

Floor brads	76/-	per	cwt
Cut Clasp Nails	77/-	per	cwt
Steel ordinary screws	1in No. 8 3/1	2in No. 8 5/4	per
Brass, do.	Do. 9/8	Do. 17/-	gross

HARDWOOD—

	Per ft super ¾in	Per ft super 1in	Per ft cube
Prime	2/4	2/6	28/-
African mahogany	3/3	4/-	50/-
Honduras do.	3/1	3/3	36/-
Portuguese Guinea do.	2/5	2/7	29/-
African walnut	5/6	5/10	65/-
Australian do.	4/3	4/6	50/-
English oak	3/4	3/7	40/-
Yugoslavian do.	5/-	5/9	65/9
Burma and Siam Teak			

DOORS.—STANDARD TYPE SOFTWOOD

Each in quantities 12 or more.
1⅜in finish, 4 horizontal panels moulded both sides 6ft 6in high
Each in quantities 12 or more.
2ft 3in wide 41/-
2ft 6in do. 42/3
2ft 9in do. 44/6

FLUSH DOORS, 1¾in thick, ply faced both sides, lipped edge.
All 6ft 6in high.
2ft 6in. do. 49/6

PANELLED DOORS : see B.S. 459—Part 1.

FLUSH DOORS : see B.S. 459—Part 2.

2in (nominal) as last but upper panel prepared for glazing.
2ft 6in wide 59/-
2ft 9in do. 62/-
2in (do.) all as above but in 3 panels.
2ft 6in wide 55/9
2ft 9in do. 58/3
2in (do.) all as above but in 2 panels.
2ft 6in wide 51/3
2ft 9in do. 53/6

IRONMONGERY

	2in	3in	4in	5in	6in
Cast iron Butts, per pair	1/2	2/-	3/2	5/11	8/5
Hinges, spring, single action regulating, japanned, each	—	8/-	12/-	15/3	21/-
Do. but double action spring only, each ..	—	16/6	21/-	25/9	33/-
Do. blank only, each ..	—	8/9	12/-	17/9	21/6

CURRENT MARKET PRICES *(Continued)*

IRONMONGERY—*Continued*

	12in	18in	24in	30in	36in
Tee hinges (japanned) per pair	2/–	3/10	—	—	—
Do. but stronger, per pair	3/4	6/1	8/3	—	—
Hook and Ride hinges, per pair	—	—	13/4	16/3	24/10

BOLTS—each—	3in	4in	6in	8in	10in	12in
Cabinet, barrel, straight or necked	1/6	1/8	2/–	—	—	—
Square spring, with brass knob	1/4	1/6	1/11	—	—	—
Tower bolts	—	1/8	2/4	3/1	3/10	4/7
Barrel bolts	—	2/6	3/7	4/8	6/–	7/3
Add to Tower or Barrel bolts if necked	—	½*d*	¾*d*	1*d*	1*d*	1*d*

LOCKS—each—			
Rim lock, 2 lever, wrote case, brass bolt and bushing	12/9	Brass furniture	5/–
		or Bakelite do.	3/3
		Bakelite finger-plates	2/4
Mortice lock, 2 lever, bushed	12/9	Brass furniture	8/9
		or Bakelite do.	3/10
Cylinder latches, japanned case			16/–
Brass sash fastener		each	5/–
Casement fasteners (malleable)		do.	1/6
Do. stays (do.)		do.	2/–
Axle pulleys (brass face, iron wheel)		do.	5/1
Do. as last, but with brass wheel 1¾in		do.	6/8
Sash line, No. 8 Anchor, yellow label		per yard	1/–

METAL GOODS

British rolled steel joists ex mills to basis sections on site (6in by 5in, 8in by 5in or 6in, and 10in or 12in by 6in)	£34/0/0 per ton
Extra cost over basis for following sections—	
9in or 18in by 7in, 14in by 5½in, 15in by 5in, 14in or 15in or 16in or 18in by 6in, 20in by 6½in, 20in by 7½in, 10in or 12in or 14in or 18in by 8in	10/– per ton
5in by 4½in, 7in by 3½in, 13in by 5in	15/– do.
12in by 5in, 22in by 7in	20/– do.
6in by 4½in, 7in or 8in or 9in by 4in, 10in by 5in	25/– do.
4in by 3in, 10in by 4½in	30/– do.
5in by 2½in, 5in by 3in	35/– do.
6in by 3in, 24in by 7½in	40/– do.
3in by 3in	50/– do.
4¾in by 1¾in	65/– do.
3in by 1½in, 4in by 1¾in	70/– do.
⅝ mild steel reinforcing rods ex mill d/d	£35/10/0 do.
Extras per ton	
⅝ in diameter in size	59/6 per ton
½in	72/– do.
⅜in	92/– do.
⅓in	132/– do.
¼in	172/– do.
⅛in	192/– do.
Extras for length	
5ft to 3ft	7/6 do.
3ft to 2ft	15/– do.
2ft	22/6 do.
40ft to 45ft	15/– do.
45ft to 50ft	22/5 do.
Bolts and Nuts	90/– per cwt
Trench covering, including trays 1½in deep and rebated frames, 9in wide	23/– foot run
Do., but 12in wide	24/9 do.
Do., but 14in wide	27/– do.
Do., but 18in wide	35/6 do.

METAL SUNDRIES

Cast iron pavement lights with 4in by 3in prism and convex lenses in alternate rows	33/– per ft super
Iron single fire doors, panelled both sides, pivot hung and self closing, to angle frame rebated and lugged, to meet fire regulations	54/– do.
24 gauge galvanized Tallboy 6ft high, 9in diameter with 9in by 12in base	55/– each

CHAIN LINK FENCING—

In 25 yards lineal rolls inclusive of line wire.

2in mesh	Height in inches— 36	42	48	60	72
10½ wire gauge	100/9	117/6	134/6	166/6	201/6
12½ do.	71/–	82/9	94/6	118/3	141/9
14½ do.	50/9	59/–	67/3	84/6	101/3

DOUBLE SOOT DOORS AND FRAMES—

Fitted with brass turn-buckle and cast key	9in by 9in	12in by 9in	14in by 12in
	19/6	28/9	49/6

SLIDING DOORS, GATES AND PARTITIONS—

Factory sliding doors in two leaves containing about 100 sq ft with mild steel angle frames covered with 24 gauge corrugated galvanized sheeting and including hanging tubular track and gear complete	18/6	ft super
Factory entrance gates with mild steel frames clad with 2in mesh chain link complete	16/6	do.

STEEL ROOF LIGHTS—

In Skylights and Lanterns, Standard type with puttyless glazing, lead flashings, and ¼in rough cast glass ; in the case of Lanterns 18in vertical sashed sides are provided in addition.

Size at Base	6ft by 4ft	8ft by 6ft	10ft by 8ft
Skylights	£34	£49	£67
Lanterns	£53	£74	£106

HIGH GRADE DOMESTIC BOILERS—

Coke Fed. Performance 20 to 40 gallons raised from 47°F to 140°F per hour as under.

TYPE		£	s.	d.
20 gallons per hour 15in wide, 23in high	Plain cast iron, black finish	11	0	0
	Do., in cream mottle finish including side jackets	15	15	0
25 gallons per hour 19in wide, 22in high	In cast iron as before and base plate	11	17	0
	Do. in cream mottle with side jackets and base	17	5	0
40 gallons per hour 22in wide, 23in high	In cast iron, etc., as last do.	18	15	0
	Do. in cream mottle all as last do.	25	17	0

GAS, WATER AND STEAM TUBES

(From Standard List)

Internal Diameter—	¼in & ⅜in	½in	¾in	1in	1¼in	1½in	2in
Tubes per ft	4*d*	4½*d*	5½*d*	6¾*d*	9½*d*	1/1	1/4½	1/10
Bends each	8*d*	9*d*	11*d*	1/2	1/7½	2/7½	3/2	5/2
Elbows, sq. do.	10*d*	11*d*	1/1	1/3	1/6	2/2	2/7	4/3
Do., round do.	11*d*	1/–	1/2	1/5	1/8	2/4	2/10	4/8
Tees do.	1/–	1/1	1/3	1/7	1/10	2/6	3/1	5/1
Crosses do.	2/2	2/4	2/9	3/3	4/1	5/6	6/7	10/6
Backnuts do.	2*d*	2*d*	3*d*	3½*d*	5*d*	6*d*	8*d*	1/1
Sockets do.	3*d*	3*d*	4*d*	5*d*	6*d*	8*d*	10½*d*	1/3
Sockets, dimin. do.	4*d*	5*d*	6*d*	7*d*	9*d*	1/–	1/4	2/–

PERCENTAGES ON OR OFF ABOVE

In quantity and in random lengths.

TUBE—			
Class A (light)	—12½%	Black	+9% Galvanized
Class B (medium)	—2½%	Do.	+20% Do.
Class C (heavy)	+12%	Do.	+37% Do.
FITTINGS—			
Lightweight	+22%	Black	+35% Galvanized
Heavy	+30%	Do.	+45% Do.

RAINWATER GOODS (Painted or Unpainted)

In consignments of 5cwts and over

From Standard List

Pipe :		2in	3in	4in	5in	6in
6ft lengths	each	12/10	14/5	18/11	24/8	31/6
3ft do.	do.	7/–	7/9	10/–	13/1	16/6
Shoe, ordinary	do.	2/7	3/10	5/7	9/5	12/11
Bend	do.	3/1	4/4	6/3	11/3	14/7
Branch, single	do.	4/6	6/7	9/3	14/7	22/6
Offset, 4½in	do.	3/9	5/3	7/9	12/11	17/–
Do. 9in	do.	4/11	6/6	9/8	15/3	19/3
H.R. gutter, 6ft length	do.	—	6/–	8/5	10/4	13/10
Angle or nozzle	do.	—	2/6	3/1	3/9	5/4
Stop end	do.	—	9*d*	1/1	1/6	1/9

Above plus 12½%

CURRENT MARKET PRICES (Continued)

PLASTERING MATERIALS

Sand, lime, cement and various plasters are previously included under those heads—

Metal lathing (⅜in by 24G) (20 yards)	3/11	sq. yard
Plaster baseboard ⅜in (600 yards)	2/4	do.
Lath nails, galvanized	1/2	lb
White glazed tiles (6in by 6in by ¼in) small quantity	17/9	sq. yard
Do. rounded on one edge	22/3	do.
Do. on two adjoining edges	27/–	do.

PLUMBER'S GOODS

4lb lead sheet (in 1-ton lots)	155/3	per cwt
Lead water pipe in coils (do.)	157/6	do.
Plumber's solder	3/10	lb
Copper tacks	6/9	do.

IRON SOIL AND WASTE PIPE. (5cwt lots and up)

each	2in	3in	3½in	4in
⅜in Medium pipe, 6ft length	14/6	17/2	19/3	21/11
Do., 4ft length	10/5	12/2	13/7	15/5
Bends	5/4	6/6	8/1	9/1
Do., with oval door	17/4	18/6	21/1	24/7
Junction, single	6/6	9/8	11/3	13/3
Do., with oval door	18/6	21/8	24/3	26/3
Swan necks, 4½in	6/6	10/3	11/9	13/9
Do., 9in	8/8	11/9	13/9	16/1
Holderbat, 2¼in projection	5/9	5/11	6/2	6/4

Above plus 12½%

GALVANIZED CISTERNS, TANKS AND CYLINDERS—(Less than four)

each gallons	Nominal capacity			
CISTERNS—	100	150	200	300
Bends over tops and corner plates. Riveted or welded				
14 gauge	171/6	234/3	283/4	405/–
12 gauge	198/6	252/7	312/–	436/6
¼in plate	236/–	296/8	355/6	499/–
HOT WATER TANKS				
Riveted and with handhole and ring.	20	25	30	40
12 gauge	118/6	131/6	143/6	171/6
¼in plate	131/–	143/5	155/10	190/8
HOT WATER CYLINDERS—				
Riveted, with handhole and ring.	20	25	33	39
12 gauge	159/–	167/6	189/–	204/6
¼in plate	177/–	195/6	214/–	226/6

PLUMBER'S BRASSWORK, etc. Each

	½in	¾in	1in	1¼in
Boiler screws, single nut	1/7	2/–	3/2	5/2
Do., double nut	2/–	2/7	4/2	6/6
Cap and lining	1/1	1/7	1/10	2/–
Plumber's unions	2/7	3/4	4/9	7/7
Ball valves, screwed iron	15/3	22/3	—	—
Do., fly nut and union	16/5	23/9	—	—
Bib valves, crutch top screwed iron	9/–	12/9	—	—
Do., but screwed boss	10/1	14/4	—	—
Stop valves, screwed iron	7/3	10/3	—	—
Do., screwed iron and union	9/3	13/–	26/–	—
Do., double union	10/3	14/6	29/6	—
Waste, plug chain and stay	—	—	8/–	9/–
	1½in	1¾in	2in	4in
Caps and screws	3/1	3/6	5/6	—
Sleeves, long	—	—	7/5	10/–
Do., short	—	3/8	3/4	8/6
Thimble	—	3/8	4/8	10/2
Full way gate valves, hot pressed	20/9	30/–	—	—
		1½in	1¾in	2in
Lead 7lb P. trap		7/6	9/9	13/10
Do., S. trap		9/2	12/1	16/11
Lead 6lb P. traps with 3in seal		8/4	10/1	—
Do., but S. traps, do.		10/5	12/8	—

Wire balloon guards, copper, 2in 3/1 ; 4in 3/4
Dc., galvanized iron, 2in 1/11 ; 4in 2/1
Hair felt, 34in by 20in, 24oz, 6/– sheet
Boss white jointing compound, 2/– lb
Gasket, 1/10½lb. Hemp, 7/3lb.

COPPER TUBES—Extract from B.S. 659/1955—

Nominal bore	Internal work (semi-hard). Outside diameter inch	Gauge	Weight lb per ft	3cwt lots Price per lb pence	Price per ft pence
½in	0·596	19	0·27	47	12·69
¾in	0·846	19	0·39	45⅜	17·70
1in	1·112	18	0·62	43⅞	27·21
1¼in	1·362	18	0·76	43¼	32·87
1½in	1·612	18	0·91	43¼	39·36
2in	2·128	17	1·40	44⅞	62·83

CAPILLARY TYPE CONNECTIONS—All ends copper to copper

Each	½in	¾in	1in	1¼in	1½in	2in
Straight	1/8	2/4	3/8	4/10	6/6	9/4
Bends	4/4	5/4	7/8	10/6	16/6	23/2
Tees	4/–	4/8	7/6	11/–	15/8	23/2
Brackets (Brass)	2/5	2/10	3/4	—	—	—

GLASS

	Per foot superficial 24oz.	26oz.	32oz.
English, flat drawn sheet glass cut to sizes in squares	8¾*d*	11*d*	1/2⅜
Figured rolled and cathedral, white, cut to sizes, in squares (⅛in)	10⅛*d*	Per ft super	
Ditto, but in standard tints	1/8	do.	
⅛in Rolled, cut to size, in squares	10⅞*d*	do.	
¼in or ⅜in rough cast do.	1/2¼	do.	
¼in do. wired do.	1/5	do.	
Georgian wired do.	1/5¼	do.	
Fluted (No. 4) do.	1/6½	do.	
Reeded, (narrow, broad, cross and major) do.	1/3½	do.	
Reedlyte (narrow and broad) do.	1/3⅝	do.	
Spotlyte do.	1/3⅝	do.	
⅛in Calorex Cast do.	1/3½	do.	
Calorex Sheet (15oz)	6/9	do.	
do. (21oz)	9/3	do.	
Flashed Opal (15/18oz)	4/3	do.	
Pot Opal (15/18oz)	4/3	do.	

POLISHED PLATE GLASS (Tariff) Cut to sizes.
Ordinary substance ⅜in and ¼in thick.

Per Superficial ft In plates not exceeding :	General Glazing
2ft super in each	3/10
5ft do.	4/9
45ft do. (unless extra sizes)	5/7
100ft do. (do.)	6/–

Extra sizes, i.e., Plates exceeding 100ft super or 160in one way or 96in both ways at higher prices.

DECORATING MATERIAL

	Price	Unit
Aluminium Paint	37/6	Gallon
Distemper, ceiling	35/–	Cwt
Distemper, washable	110/–	do.
Enamel	60/–	Gallon
Gold Metallic Paint	86/6	do.
Heat Resisting Paint	50/–	do.
Japan, black	23/6	do.
Knotting	40/–	do.
Linseed Oil	18/9	do.
Boiled, do.	19/3	do.
Proprietary Paints (good class)—		
Finishing	57/6	do.
Priming	62/–	do.
Undercoat	56/–	do.
Paperhanger's Paste	36/6	Cwt
Petrifying liquid	8/9	Gallon
Putty	55/6	Cwt
Size	9/3	Firkin
Terebine	16/–	Gallon
Turpentine substitute	6/3	do.
Varnish, oak, copal inside use	33/–	do.
Do., do., outside use	38/–	do.
Do., white, eggshell, flat	44/6	do.
White lead mixed paint	70/–	do.
White lead	194/–	Cwt
Whiting	13/3	do.

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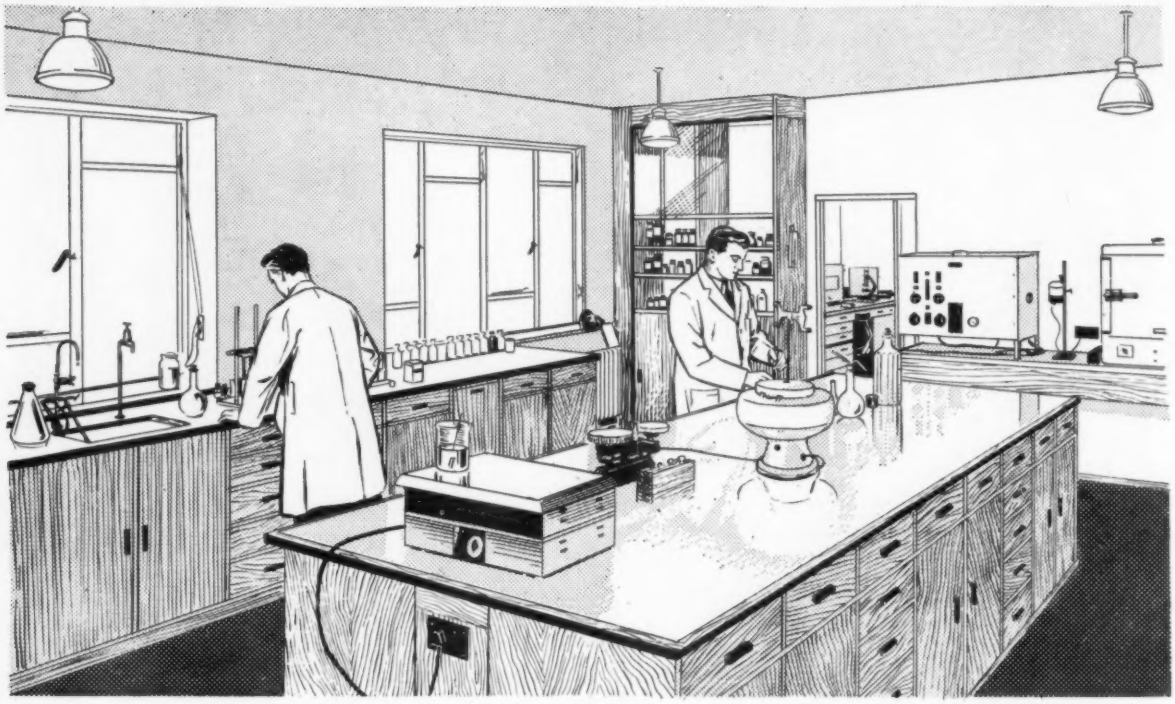

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CURRENT MEASURED RATES (LONDON)

These apply to new work of normal character and some size. These rates are for time and materials only and carry 10 per cent in excess, so the appropriate essential on-costs should be added. The basis cost of material used in the calculation of these prices is taken from the foregoing tables which carried up to November 29, 1956.

ESSENTIAL ON-COSTS

Fees payable to L.C.C. for District Surveyor:

For new buildings of ordinary construction exceeding 5,000 cubic feet, for every 1,000 feet or part of same up to 1,000,000 cubic feet 1/6, together with an additional sum of £1/10/– ..	£1/10/– *at* + 1/6
After which allow per 1,000 do.	at + 9*d*
For alterations and additions :	
When £100 the sum of £2/10/–, plus 12/6 for every £100 or part of same, up to £1,000 ..	£2/10/– *at* + 12/6 per 100
When over £1,000 the sum of £8/2/6, and for every £100 or part of same beyond 3/–	£8/2/6 *at* + 3/– per 100
Public buildings: Fees as above but plus 50% ..	+ 50%
Fees in respect of means of escape in case of fire are 1/5th of the above or £2 if greater or in the case of a one-storey building £1	1/5th
Steel framed or r.c. buildings double	+ 100%

Allowance to cover National Insurances, Holidays with Pay and Public Holidays, Welfare, Third Party Risk, Travelling and Guaranteed Week is made in the rates attached to the items.	
Allow for Fire Insurance do.	1/6%
Allow for Water for use on the works and apparatus do.	6/6%
Allow for hoarding, or similar licences in City of London	say £10
Do. under Borough Councils per each month ..	say 2/6
Allow for Office, Fire, Attendance on C. & W., etc. p. week	say £1

Supervision, etc., assessment Contract value	£4,000	£6,000	£12,000	£24,000	£50,000
Cost of admin. ..	6%	5%	5%	4½%	4½%
Agent or foreman (each)	5%	4½%	3½%	2½%	1½%
Timekeeper or Watchman (each)	2½%	2¼%	1½%	1%	¾%

SPOT ITEMS AND DEMOLITION, ETC.	Per ft run
Hoarding erected and removed	19/–
Planked gangway with handrail, etc. do.	10/–
Proper gantry do.	75/–
Sleeper roadways	16/–
Needling, strutting and shoring including all labours and use and waste in erection and removal	Per ft cube 19/–

ALTERATION-DEMOLITION—	1 Brick	1½ Brick	2 Brick	Per yard cube
	(Per ft super)			
Cutting out cement concrete or brickwork in small quantities ..	1/3	2/5	3/5	61/–
Do. if either in very small quantities or reinforced	2/2	3/11	5/8	89/11
Debris into baskets and removed from inside to outside of bldg.	3½*d*	7*d*	9*d*	13/–

SCAFFOLDING (Avg. 45ft high) Per yard superficial	Period 1 month	3 months	5 months
Putlog type—4ft 6in lift ..	6/2	8/3	10/8
Do. —6ft 0in do. ..	4/7	6/4	8/1
Independent type—4ft 6in lift	7/11	11/4	14/10
Do. —6ft 0in do.	5/8	8/2	10/3

EXCAVATION Per Yard Cube *By hand*	Common Soil	Loamy Clay	Gravel or Clay	Rock or similar
Reducing levels	6/1	7/3	8/6	56/9
Surface trench not exceeding 5ft deep	12/5	14/10	19/9	70/7
Do. from 5ft to 10ft ..	22/8	25/6	30/6	77/–
Do. from 10ft to 15ft ..	28/3	31/1	36/–	84/3
Fill in and ram	4/10	5/6	5/6	5/6
Barrowing 25 yds.	2/10	3/2	3/2	3/7
Load vehicles and tip 8 miles away	16/–	16/–	17/–	17/9

PLANK AND STRUT	To 5ft deep	5 to 10ft deep	10 to 15ft deep
To trenches, in normal ground	7*d*	8½*d*	10*d*
Per Ft Super			

CONCRETE 1½in Ballast Aggregate	Per yard cube
1 : 3 : 6 Cement concrete in foundations	75/–
Do. around grillages	78/–

REINFORCED CONCRETE	
1 : 2 : 4—¾in concrete, worked around reinforcement, between formwork in the following (at various levels):—	Per cubic yard
Foundations and surface beds	83/7
Walls, 12in thick or more	89/2

Sectional inches	Lintols and beams	Columns and casings		Braces and projections
Up to 36 ..	4/7	4/11	4/9	Per cubic ft
36 to 72 ..	4/5	4/8	4/6	do.
72 to 144 ..	4/4	4/7	4/5	do.
over 144 ..	4/3	4/5	4/3½	do.
Walls 6in thick			18/1	Per super yd
Do. 9in thick			26/9	do.
Suspended floors average 6in thick			17/10	do.

REINFORCING RODS (round) bent and placed. (Ex Mills)— Per cwt	¼in	⅜in	½in	⅝ to 1in
In floors and beams ..	84/–	72/–	68/–	59/9
In walls	90/–	76/9	72/–	63/3
In columns	96/8	81/6	76/3	66/–

FORMWORK and Supports (4 times use)— Floor soffits	Beams	Walls	Columns
19/– per yard	2/6	2/4	2/4 per super ft

BRICKWORK

BRICKWORK per YARD superficial reduced to ONE BRICK in thickness (scaffold to add)—	In 1 : 3 cement mortar
Flettons or other similar *at* 115/– per 1,000	39/10
Mild Stocks or do., *at* 226/6 per 1,000	53/10
Second Stocks or do., *at* 281/– per 1,000	59/7
Southwater engineering or similar bricks, *at* 382/– per 1,000	74/7
Blue Staffordshire wire cut *at* 530/6 per 1,000 ..	90/4
Deduct if 1 : 1 : 6 Cement-Lime mortar is used in lieu of 1 : 3 Portland Cement mortar	2*d*
Add if brickwork commences above ground level ..	4/–
Do. if in backing to masonry including cutting and waste for bonding	3/3
Do. If circular-on-plan	7/8
Do. If in underpinning	7/8

BRICKWORK IN THICKNESS NOT REDUCED— Per yard superficial	Brick, on edge walls	Half-Brick walls	1 Brick finished fair both sides	11in Hollow with 2in cavity and G.I. tics
In Flettons or similar	17/3	22/–	40/9	46/6
In second stocks or do.	23/3	30/10	57/9	63/10
Add: for pointing as work proceeds, per side	1/7	1/9	1/7	1/7
Thickness to old walls, including cutting, toothing and bonding to same an average total thickness of ¾ brick ..		55/3 Fletton	69/- Stock	Per yd super
Do. all as last but an average total thickness of 1½ bricks ..		75/4	99/–	do.

WALLS BUILT IN SUPERIOR BRICKS— In 1 : 3 Cement mortar, fair faced and pointed on both sides as the work proceeds :—	Half-Brick	One Brick	
In first quality Stocks at 302/–	36/3	64/7	Per yd super
In red facings at 320/-	36/–	64/6	do.
In blue pressed facings at 587/–	56/8	98/11	do.

GENERAL AND SUNDRY—			
Cut tooth and bond new brickwork to old ..			4/11 per ft
Damp proof course, double slate, horizontal ..			3/9 super
Do., as last, but vertical			4/7 do.
Do., bitumen, Hessian base, do.			2/– do.
Frames, bed and point in cement mortar, one side 4½*d* per ft run			
Window board of 6in by 6in by ¾in rounded on edge quarry tiles, bedded, pointed, cut and fitted ..			3/6 do.
Terra cotta air bricks built in and pointed, including flue ..	9in by 6in 5/6		9in by 9in 10/– each
Chimney pots, plain red, set and flaunched in cement mortar ..	Ift high 14/9		2ft high 21/– each
Metal windows, assembled, hoisted and fixed, lugs cut and pinned and frames bedded and pointed one side in cement mortar	Up to 5ft super 12/8	10ft to 20ft super 24/6	5ft to 10ft super 15/11 each 20ft to 40ft super 40/8 each
Leaving holes through walls for pipes and afterwards making good	Small pipes 3*d* per in in depth		Large pipes 6*d* per in in depth
Cutting do., and afterwards do. ..	11*d* do.		1/9 do.
Cut mortices in brickwork or concrete for bolts or dowles and run in with cement grout ..			1/2 per in in depth, each
Holdfasts of stout iron hoop bent holed and screwed to frame and built in			1/4 each

MEASURED RATES—*Continued*

BRICKWORK—*Continued*

FACING—

Extra only over common brickwork (115/– per 1,000) for facing with superior bricks in *Flemish bond* and pointing as the work proceeds.

Rustic Flettons (145/–)	4/2 per yd super
White (220/–)	9/9 do.
First Stocks (302/–)	15/11 do.
Reds (320/–)	17/3 do.
Blue pressed (587/–)	37/3 do.

If built in English bond, *Add* 12½% to above.
If do. half-brick stretcher bond, *Less* 25% off above.

COPING—

All labour and material in forming brick-on-edge coping with two course of roofing tiles under and cement weather fillets on both sides, built in cement and pointed as the work proceeds.

Per ft run	9in thick	14in thick
In picked Flettons	6/3	8/5
In first quality Stocks	7/7	11/1
In red facings	7/5	10/11

Plumbing angles	2*d* per ft run
Fair cutting	11½*d* do.
Fair raking cutting	1/6½ do.
Fair circular cutting	1/6½ do.
Fair squint or birdsmouth	1/10½ do.

ARCHES

Extra over Fletton brickwork for forming window head with red facing bricks set on end and with 4½in soffits and pointing	ft run 3/7
Do. for rubbed and gauged flat arch in red rubbers set in putty with fine joints	ft super 18/3

PARTITIONS

(over 100 Yds)	Per yd super— 2in	2½in	3in
Concrete slab partitions in cement mortar	10/9	12/2	14/4
Hollow clay do	12/9	13/8	15/3
Cutting and bonding at angles, intersections and ends	5*d* ft run		

PAVING	1in	1¼in	1½in
Grano trowelled gauge 5 : 2	8/2	9/2	10/3 yd super
1 by 5in skirting, square top and cove bottom			2/10 ft run
⅜in by 6in red quarry tile paving			29/6 yd super
⅜in by 6in do. skirting			1/10 ft run
Jointless flooring, ¼in thick			20/– yd super

ASPHALT (normal conditions and fair quantity)

	B.S. 1450/48	B.S. 1375/47 Brown	B.S. 1375/47 Red
⅝in pitch mastic floor in one coat on felt underlay on prepared concrete base			
Per yd super	12/6	13/2	15/–
	Unit	Mastic B.S.988	Natural Rock B.S.S. 1162/44
⅜in in two thicknesses on felt underlay on prepared concrete base	yd super	15/–	22/6
Do. in narrow widths	ft super	2/6	3/6
½in skirting 6in high, angle fillet at bottom splayed and turned in at top	ft run	2/6	2/9
External angles	each	6*d*	6*d*
Internal do.	each	10*d*	10*d*
Tanking or Damp Course		B.S.1097/43	B.S.1418/47
Vertical in two thicknesses	yd super	22/6	30/–
⅜in horizontal do.	yd super	13/6	23/6
Vertical in three thicknesses	yd super	32/–	41/–
1½in horizontal do.	yd super	18/–	29/–
Labour rounded external angle	per ft run	6*d*	6*d*
Do. internal angle fillet	per ft run	10*d*	11*d*
Do. double do.	per ft run	1/3	1/3
Collars to small pipes	each	3/6	4/–
Do. to large pipes	each	6/6	8/–

DRAINAGE

Excavate trench, and plank and strut to sides, consolidate bottom to fall, return fill and ram earth after drain is laid and load and remove surplus. In ordinary ground—moderately firm.

Per lineal yd	
1 ft in depth	4/9
2 do.	8/3
3 do.	19/3
4 do.	25/–
5 do.	32/–
6 do.	42/11
7 do.	52/4
8 do.	66/3
9 do.	77/–
10 do.	94/8
11 do.	107/5
12 do.	121/–

Portland cement (1 : 6) concrete bed under drain pipes and benching up on both sides—6in thick	Per yd run 4in 18in wide	6in 20in wide	9in 23in wide
	8/–	9/6	11/6

SALT GLAZED SANITARY DRAIN PIPES
and lay and joint with Yarn and Cement Mortar in trench.

Quality	Quantity	Per ft run 4in	6in	9in
"Best"	2ton or more	3/2	4/4½	7/4
	over 100 pieces	3/5	4/10½	8/2
	under 100 do.	3/6	4/11½	8/6
"Best Tested"	2ton or more	3/11	5/1½	9/2
	over 100 pieces	4/4	6/4½	10/6
	under 100 do.	4/5	6/7½	10/10
"British Standard"	2ton or more	3/4	4/11½	7/9
	over 100 pieces	3/9	5/6½	8/9
	under 100 do.	3/10	5/9½	9/6
"British Standard Tested"	2ton or more	4/1	6/1½	9/11
	over 100 pieces	4/8	7/1	11/4
	under 100 do.	4/11	7/3½	12/–
Extra for bends "Best"—Contained in 2 ton lots.		4/2	6/3	16/6
Extra for junction "Best"—4in on 4in, 6in on 6in—9in on 9in	do.	6/6	9/9	27/–

IRON DRAIN PIPES—

	Per ft run 4in	6in
Heavy cast iron socketed and laying and jointing in molten lead—		
In main runs	13/3	18/5
In branches	14/7	20/–
	each	
Extra over last for bends and extra joint	28/6	61/6
Do. on do. for junctions and extra joint	42/4	79/6
Cast iron gulley with 10½ inlet and 4in outlet, composed of hooper and trap, and 9in extension piece and 10½in grating, and jointing all together, and jointing to drain and surrounding in concrete	177/–	—
Do. rain water, shoe with vertical inlet and inspection cover, and joint up and embed	81/6	135/–

MANHOLE SUNDRIES—		4in	6in
Salt glazed straight half-round main channels	each	5/–	7/–
Do. curved	do.	10/6	15/–
Do. three-quarter section splayed channel bends (Barrons or similar)	do.	14/3	20/8
Heavy manhole steps galvanized	do.	9/9	—
Fix only manhole covers	do.	11/–	—
4in Mica flap, brass faced, f.a.i. valves and fix with molten lead joint	do.	38/6	—

ROOFER

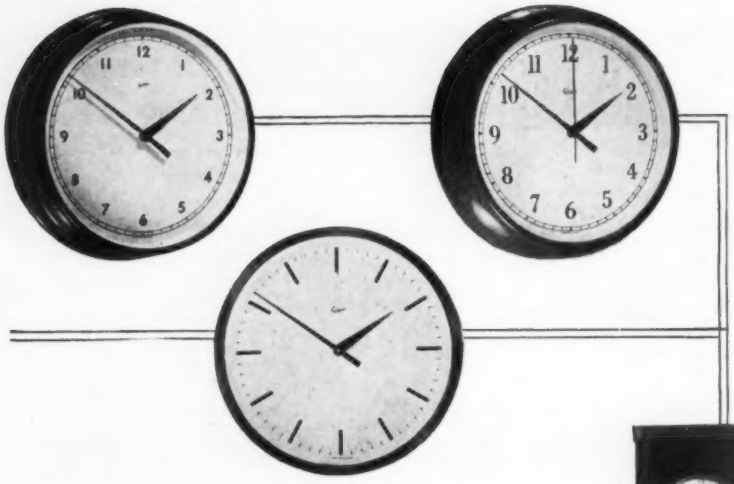
CORRUGATED ASBESTOS SHEETS

P.C. 7/4¾ per super yd, including side and end laps and fixing to wood	150/– per square
Eaves filler pieces	2/– ft run
Adjustable ridge	3/6 do.
Barge boards	2/8 do.
Plain roofing tiles, machine made, sand faced, 4in gauge nailed every 4th course with 1½in galvanized nails, to battens (measured separately)	285/– do.
Extra over last for top edge or abutment cutting	1/6 do.
Do. for double course at eaves	2/10 do.
Do. for verges, undercloak, bed and point	3/9 do.
Do. Valley tiles including cutting and waste on both sides	11/3 do.
Do. Bonnet hips and do. bed and point	11/9 do.
Half-round ridge and bed and point	3/3 do.
Fixing soakers	1/6 dozen

Bituminous felt roofing in two layers, laid breaking joint and bedded with hot mastic and finished with fine dry grit	11/6 yd
Do. but in one layer only	8/6 super

WELSH SLATING	Per square 16″×10″	18″×10″	20″×10″
3in lap, 2 zinc nails to each slate	312/6	319/6	378/6

Additional labours	Per ft lineal—		
At tops, verges and abutments—straight	1/9	1/11	2/2
Do. —raking	2/7	2/11	3/2
At hips and valleys (each side)	2/7	2/11	3/2
At eaves, double course	3/6	3/10	4/4
Do. to falls	5/3	5/6	6/4



One hundred 'slave' clocks on a hundred walls—all keeping the same accurate time because they're controlled by the Gibson master clock. As integral a part of the building as the lighting system, Gibson clocks should be specified at the drawing board stage. Time recording, job costing and sound signal systems can be incorporated in these installations; which makes them essential for hospitals, schools, factories or wherever exact time-recording is necessary. Gibson clocks are immune to power failure as they are controlled by trickle-charged accumulators. Special designs can be carried out: available designs are varied and good.

Clock systems are obtainable on a rental basis or may be purchased outright.

The master clock masters time

Gibson CLOCKS are made by—

Time recording, job costing and sound signal systems can be incorporated in these installations

BAUME & CO. LTD

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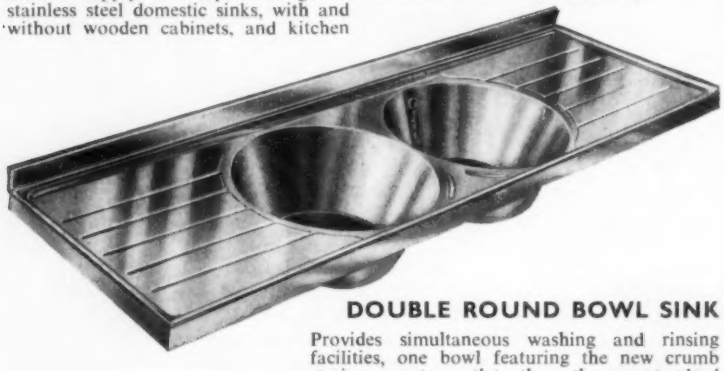
Two more labour-saving ideas

FROM THE SISSONS RANGE OF STAINLESS STEEL SINKS

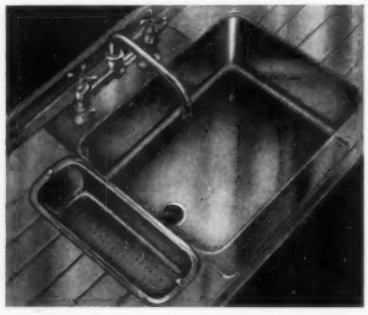
A double round bowl sink, and a built-in sink tidy—two excellent examples of the way in which Sissons cater for the really up-to-date kitchen.

Sissons supply a complete range of stainless steel domestic sinks, with and without wooden cabinets, and kitchen unit furniture to match. They also produce large numbers of sinks for catering and other special purposes, either as standard models or to customers' own specifications.



DOUBLE ROUND BOWL SINK

Provides simultaneous washing and rinsing facilities, one bowl featuring the new crumb strainer waste outlet, the other a standard plug and chain. There are two sizes:—4ft 9½in by 1ft 6in and 6ft 7½in by 1ft 9in.



BUILT-IN SINK TIDY

Here's another Sissons innovation. The built-in sink tidy is a neat way of disposing of tea-leaves and other refuse. It is a miniature sink with its own waste outlet, and is fitted with a perforated container which lifts out for emptying. The sink tidy is fitted to standard sink tops. Further details on request.

Write today for the free illustrated literature.

Sissons
STAINLESS STEEL SINKS

W. & G. SISSONS LTD., ST. MARY'S ROAD, SHEFFIELD, 2

Workers in Metal since 1784

MEASURED RATES—*Continued*

FLOORS AND FLATS

Hollow tile *in situ* or precast units hoisted, bedded and fixed—

Superimposed load in lb per ft super	Span 12ft	Span 16ft
50 ..	48/6	55/–
Per yd super 100 ..	50/3	59/–
150 ..	55/–	64/–

20lb has been allowed to cover dead load in surface, finish.
Fair edge to slabs .. .. 9*d* per ft run
Splay cutting and waste .. .. .. 1/9 d.o

CARPENTER AND JOINER

SOFTWOOD CARCASSING—	Plates	Joists (per ft cube)	Rafters (per ft cube)	Trusses (per ft cube)
Labour, materials, waste nails, hoisting and fixing.. ..	18/10	20/1	21/8	24/3

FLOORING— Per square—	¾in	1in	1¼in
Rough boarding	141/6	161/6	198/6
Softwood batten flooring, straight joints, splayed headings	143/–	163/–	200/6
Do. grooved and tongued	162/8	193/2	237/9

SKIRTING— Per ft superficial—	½in	¾in	1in
Wrot softwood moulded skirting with grounds and backings plugged ..	3/8	4/3	4/10
Mitres to do .. 3*d* per sectional in			
Fitted ends .. 2*d* do.			

SASHES, fanlights, casements, borrowed lights, etc.—

Per ft super—	Without bars	With bars (2ft sup. in each square
2in softwood rebated, moulded and fixed	3/2	5/7
Add if fitted with beads	6*d*	1/6
Add if hanging on butts	2/5 each	

WINDOWS, hung on lines—
Softwood cased frames, 1in inner and outer linings, 1¼in pulley stiles, 2in sashes, oak sill ..

	Overall size of frames— 6ft	21ft	32ft	44ft
Per ft super				
Windows as described ..	19/–	10/7	7/11	6/2
Add if sashes in squares, about 2ft super in each	—	1/6	2/–	1/11
Extra for hanging sashes with lines, weights and axle pulleys	each 30/3	50/3	62/3	84/3

FINISHINGS TO OPENINGS— Per ft super—	¾in	1in	1¼in	1½in
Softwood linings, tongued at angles and tongued to frame including grounds and backings	3/7	4/1	5/–	5/7
Add if crosstongued	6*d*	6*d*	6*d*	6*d*
Softwood wrot rounded on front edge and with tongue at back window board including groove in sill and bearers	3/6	4/–	4/11	5/5
Add for ends to last notched, returned and rounded	1/1	1/2	1/3	1/4

Per ft run— Sectional area in in—	1	2	3	4	5	6
Softwood wrot and fixed in bearers, backings, grounds, fillets, and similar	3½*d*	6*d*	8½*d*	11*d*	1/1½	1/3½
Add if in short lengths.. ..	2*d*	2*d*	2½*d*	2½*d*	3*d*	3*d*
„ if plugged to brickwork	4*d*	4*d*	4*d*	4*d*	4*d*	4*d*
„ if framed as in legs and bearers	3*d*	3*d*	4*d*	4*d*	6*d*	6*d*
„ if rebated or grooved or beaded	¾*d*	¾*d*	¾*d*	¾*d*	¾*d*	¾*d*
„ if chamfered or rounded edges				1½*d*		
„ if moulded in architraves, capping, etc.				3*d*		

DOOR FRAMES— Per ft run— Per sectional in—	6in	8in	10in	12in	13½in
Softwood, wrot, rebated, rounded, framed and fixed	2/2	2/6	3/2	3/6	3/9

DOORS—Per ft super Number of panels—	1	2	3	4	5	6
2in Softwood square framed and flat panels, both sides, on butts ..	5/8	6/6	7/–	7/6	7/10	8/4
1½in do.	5/1	5/11	6/4	6/9	7/2	7/8
Add for each side moulded	3*d*	4*d*	5*d*	6*d*	7*d*	8*d*
Add B.S. flush panelled	1/6	1/6	1/6½	1/7	1/8	1/8

Per ft super—	¾in	1in	1½in	1¾in
In shelves, table tops, wrot and fixed	2/4	2/7	3/–	3/6
Do. in divisions and ends framed ..	2/7	2/10	3/3	3/11
Add if crosstongued	6*d*	6*d*	6*d*	6*d*
Add if buttoned	6*d*	6*d*	6*d*	6*d*

SUNDRIES—Per ft run—	In short lengths	In long lengths	Add for cups and screws
Glazing, beads mitred around and fixed with brads	6*d*	4*d*	2*d*
Rounded heel or hollow ..		4*d*	
Tongued and grooved angle ..		6*d*	
Glue blocking		6*d*	
Mitres	3*d*	per sectional in	
Fitted ends	2*d*	do.	

STAIRCASE—	Per ft super		
1¼in Softwood treads with moulded nosings. 1in risers tongued both edges and glued, blocked and bracketed on and including two fir framed carriages	6/–		
Do. but in winders	7/3		
1¼in crosstongued landing on framed carriages	6/–		
2in moulded string	5/–		
2in do. ramped	11/9		
Ends framed to newel	9/8 each		
Tongued and mitred angles	5/6	do.	
Tongued heading joints	5/6	do.	
Ends of treads and risers housed to string ..	3/6	do.	
Extra for curtail ends to steps, glued up and veneered riser and solid blocking	100/-	do.	
Balusters about 2ft 9in long, square and framed each end .. .. each	1in 3/9	1¼in 4/6	1½in 5/3
3½in by 3½in square newel, framed ..	4/– per ft run		
African mahogany moulded 3in by 2in hand-rail. (Joints below)	8/9	do.	
Do. ramped 18in girth (do.)	52/–	each	
Do. wreathed do. (do.)	155/-	do.	
Joint or framed ends	11/–	do.	

FIXING ONLY IRONMONGERY	To deal	To hardwood
Barrel bolts	1/8	2/6 each
Flush bolts	4/–	4/10 do.
Sash fasteners	3/2	2/10 do.
Rim locks and furniture	5/6	7/– do.
Mortice locks and do.	11/-	17/– do.
Cupboard locks	2/9	3/5 do.
Casement fasteners	2/3	2/9 do.
Do. stays	2/3	2/9 do.
Grip handles	2/7	3/5 do.
Spring catches	2/3	2/9 do.
Cabin hooks	1/10	2/5 do.
Floor springs including oil	47/–	60/– do.
Overhead springs	14/–	16/6 do.
Springhinges	11/–	13/6 do.

SMITH AND FOUNDER

Basis framed steel joists and hoist and fix	70/–	per cwt
Do. but in compound girders ..	80/–	do.
Do. but in stanchions	81/–	do.
Trusses	116/–	do.
Additional cost per cwt over basic sections for following R.S.J.s 9in by 7in, 10in by 8in, 12in by 8in, 14in by 8in, 16in by 8in, 18in by 6in, 18in by 7in, 20in by 6½in, 20in by 7½in	7*d*	per cwt
22in by 7in, 1/1 cwt 4in by 3in	1/8	do.
5in by 3in, 5in by 2½in	2/–	do.
6in by 3in, 24in by 7½in	2/3	do.
3in by 3in, 2/9 cwt 4¾in by 1⅞in	3/7	do.
3in by 1½in	3/11	do.
Cleats, brackets, packing pieces, etc., in connections, including rivets and bolts	154/–	do.
Forged straps	125/–	do.
Wrot iron balustrade	165/–	do.

RAINWATER GOODS—

Round cast-iron pipe with socketed joints caulked with red lead and tow and fixing with pipe nails and gas barrel distance pieces to plugs in brickwork	Per ft lineal 2in	3in	4in
Extra for shoes .. .. .. each	4/1	4/6	5/10
Do. junctions .. .. do.	5/4	6/10	9/9
Do. bends .. .. .. do.	8/1	10/3	14/10
	6/4	8/1	10/4

RAINWATER GUTTERS Per ft run—	4in	5in	6in
Half round CI gutters jointed in red lead and bolted and fixed on iron brackets	3/10	4/7	5/7
Ogee do. All as last	4/4	5/–	6/2
Extra for stop ends	3/2	3/10	4/–
Do. angles or outlets	5/6	6/11	8/3

MEASURED RATES—*Continued*

PLUMBER

EXTERNAL—	Soakers	Flats	Flashings
4lb Milled Sheet lead per cwt	196/–	233/6	244/–

LEAD PIPES : runnings joints, etc.

Per ft run		½in	¾in	1in	1¼in	1½in	2in
Main	Fixed	5/1	7/5	10/3	13/4	16/11	23/3
Service	with	4/7	6/5	8/7	10/7	13/4	18/7
Waste	hooks	3/–	4/4	5/9	8/8	9/3	11/11
Bends	each	—	—	—	1/9	3/–	8/–
Solder joints	do.	8/11	10/11	12/10	14/10	17/7	23/2
Union and joints	do.	12/10	16/5	18/6	24/6	—	—
Stop valve and *do.*	do.	28/8	37/4	51/10	80/9	—	—
Bib valve and *do.*	do.	20/1	27/1	—	—	—	—
Ball valve and *do.*	do.	26/9	36/7	49/5	71/11	—	—
Sleeve and *do.*	do.	—	—	—	—	21/1	28/6

COPPER TUBES

	½in	¾in	1in	1¼in	1½in	2in
Tubes per ft run ..	2/10½	3/5½	4/6½	5/6½	6/2½	9/4
Couplings : straight each	3/4	4/–	6/–	7/9	9/11	13/6
Do. Bends each ..	6/3	7/4	10/5	14/–	21/–	28/10
Do. Tees do.	7/7	8/10	12/8	17/4	23/1	31/8
Do. Cisterns do. ..	4/2	5/7	7/3	9/4	13/–	16/11
Stop cocks do. ..	24/4	35/4	63/–	104/6	159/-	240/–

BLACK TUBING (Class C) fixed with pipe brackets	½in	¾in	1in	1¼in	1½in	2in
Tubes, per ft run	1/10	2/2	2/9	3/5	4/1	5/4
Bends and fix, each	3/10	4/7	5/7	7/3	8/2	12/8
Tees and do.	4/–	4/9	5/9	7/5	9/–	13/4
Fire bends	1/5	1/9	1/10	2/1	2/9	4/10

	2in	4in	
Coated iron (M) weight L.C.C. soil and waste fixed with nails and distance pieces and molten lead joints	5/5	7/10	ft run
Extra only for bends and joint ..	14/4	22/11	each
Do. junctions and joints	15/10	28/8	do.
Do. cleaning doors	15/–	16/4	do.
Domical wire guards	2/6	2/9	do.

PLASTERER—			yd super
Lime and hair	¾in	Render and set	6/8
Do.	½in	Do. float and set	8/4
Sirapite	½in	Skimming coat	4/–
Do.	⅝in	Render and set	8/–
Do.	⅝in	Render, float and do. ..	9/10
Portland	½in	Backing coat	4/6
Do.	⅝in	Plain face	8/–
Do.	¾in	Floor screed	4/10
Keenes	½in	Skimming coat	5/2
Dubbing	½in	Thick or less	2/4
Metal Lathing	⅜in	mesh by 24 Gauge	6/6

6in by 6in by ¼in Earthenware Plain Glazed Tiles, in fair quantity, white, and setting (on prepared screed) .. 41/6
Rounded edge. Extra over last .. .. 4½*d* per ft run
Angles in do. .. .. 4½*d* each
Cutting and fitting. Around pipes or clips 1/3 do.
Narrow widths. 3in to 6in wide. Add 75 per cent to plain surface.
Do. 6in to 12in do. Add 40 per cent to plain surface.
Sundry labours per ft lineal :—
Quirk 2½*d*. Arris 3½*d*. Fair edge 2½*d*. Rounded edge 4*d*.
Flush bead 1/6.
Mouldings—5*d* per in girth.
Jointing new plastering to old 3*d*.

POLISHING	Ft super	Sashwork Ft run
NEW WORK—		
Staining, bodying-in and French Polish	2/9	1/9
Staining and wax polishing on hardwood	1/2	9*d*
OLD WORK—		
Cleaning down old work and repolish	1/2	—
Stripping, preparing and repolishing ..	3/–	2/–

INTERNAL PAINTING

With white lead base in common colours, with brushes.

	Knot stop and prime	Prime and paint once	Prime and paint twice	Add for each extra coat	
ON WOOD—					
General surfaces	2/9	5/5	7/8	2/1	yd super
Running lengths not exceeding 3in wide	3½*d*	7*d*	9½*d*	2¾*d*	yd run
Do. 3in to 6in wide	5½*d*	10¾*d*	1/3½	4½*d*	do.
Do. 6in to 9in wide	8½*d*	1/4	1/11½	6¾*d*	do.
Do. 9in to 12in wide	11*d*	1/10	2/7	8½*d*	do.
Sash square each side	5/4	10/–	14/8	4/1	per doz
Do. in large squares	8/–	15/–	22/–	6/5	do.
Opening edges ..	7*d*	1/2	1/9	7*d*	each
Casement frames each side	4¾*d*	8¾*d*	1/–	3*d*	yd run
Mullions or transoms, do.	6½*d*	11½*d*	1/3	4¼*d*	do.

ON PLASTER—	One coat	Two coats	Three coats	
Paint on surfaces	2/10	5/4	7/8	per yd super
Do. on mouldings ..	3/2	5/11	8/6	do.
Do. on enrichment ..	5/8	10/8	15/4	do.
ON STEEL—				
Paint on structural steel ..	2/3	4/4	6/4	do.
Do. on roof trusses ..	2/6	4/10	7/1	do.
Do. on metal windows measured over all on both sides, divided into squares	3/3	5/6	7/11	do.
Do. divided into large squares	2/9	4/9	6/4	do.
Do. divided into extra large squares	2/4	3/11	5/4	do.
Do. on opening edges ..	10*d*	1/6	2/–	each
Do. on rain water pipe ..	10*d*	1/6	2/2	yd run
Do. on do. gutter	1/3	2/8	3/7	do.
Do. on small pipe	3*d*	6*d*	10*d*	do.

GLAZING (to New Work)

Polished Plate Glass ordinary substance (about ¼in), glazing quality, in the following sizes, glazed complete—Per ft super

In plates not exceeding 2ft super in each			6/2½
Do.	5ft	do.	7/3
Do. (unless extra sizes)	45ft	do.	8/2
Do. (unless extra sizes)	100ft	do.	8/7½

Add extra price for glazing with screw beads or clips 5*d* per ft super.
Do. if glazing bedded in washleather or velvet 9*d* per ft run.

SHEET GLASS, glazed, complete, per ft super, in new work :
Ordinary quality clear, glazed to wood with putty :—

24oz as described		1/4½
26oz do.		1/6½
32oz do.		1/10½
⅛ figured rolled and Cathedral, glazed to wood with putty	Per ft super	1/6⅝
Do. in standard tints	do.	2/4½
No. 4 Fluted, glazed do.	do.	2/3
⅛in Reeded (narrow, board, etc.) do. ..	do.	1/11½
Reedlyte do.	do.	1/11½
Spotlyte do.	do.	1/11½
¼in Rough cast do.	do.	1/10½
¼in DO. wired do.	do.	2/1⅜
¼in Georgian Rough Cast do. ..	do.	2/1⅜

Add for glazing all as before but to steel to similar work as above, 1¾*d* per superficial ft.

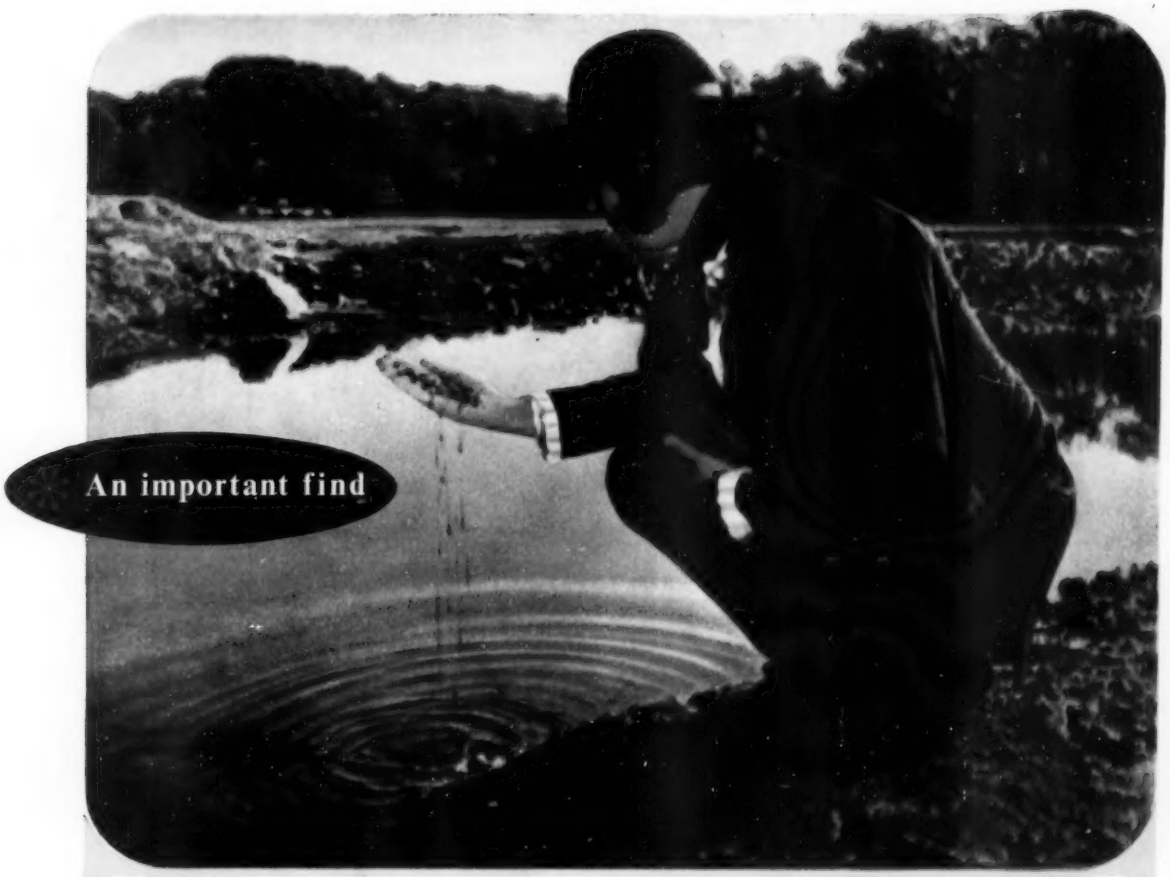
PAINTER AND DECORATOR

DISTEMPERING—In common colours, put on with brushes—
ON PREPARED SURFACE

per yd super—	1 coat (finish)	2 coats (undercoat and finish)	*Add* if required Sealing coat	Stippling
Ordinary distemper on flat surface of plaster ..	9*d*	1/4½	6*d*	3*d*
Washable do. on do. of plaster	1/–	1/10	6*d*	3*d*
Add if in margins, narrow widths or panels ..	30%	30%	20%	50%
Add if on mouldings ..	50%	50%	45%	—
Add if on enrichments ..	160%	160%	115%	—

PAPERHANGING

Hanging only—	Per Piece—Lining	Pattern
On walls	6/10	8/2
On stairs	9/4	10/10
On ceilings	8/2	9/7



A scene from the NEW B.T.P. COLOUR FILM depicting the Rev. William Gregor discovering ilmenite, the chief raw material of B.T.P. Titanium Oxide

"The Titanium Pigment Story"

THIS new colour film shows the discovery, the industrial development and the commercial application of a new element. The film draws a fine balance between technical and general interest and so appeals to a wide range of audiences.

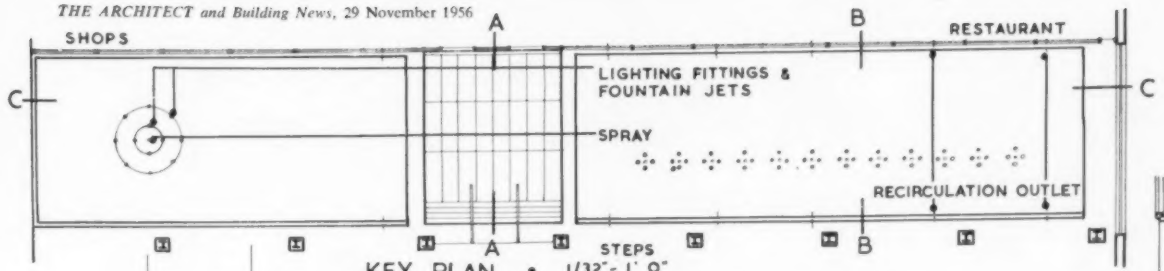
"The Titanium Pigment Story" runs for 23 minutes, and 16 m.m. prints are available free on loan to interested Companies, Professional and Trade Associations, Clubs, Societies, Schools and Colleges. Alternatively B.T.P. will be pleased to arrange the complete showing without charge of any kind.

For further information write to the Publicity Officer

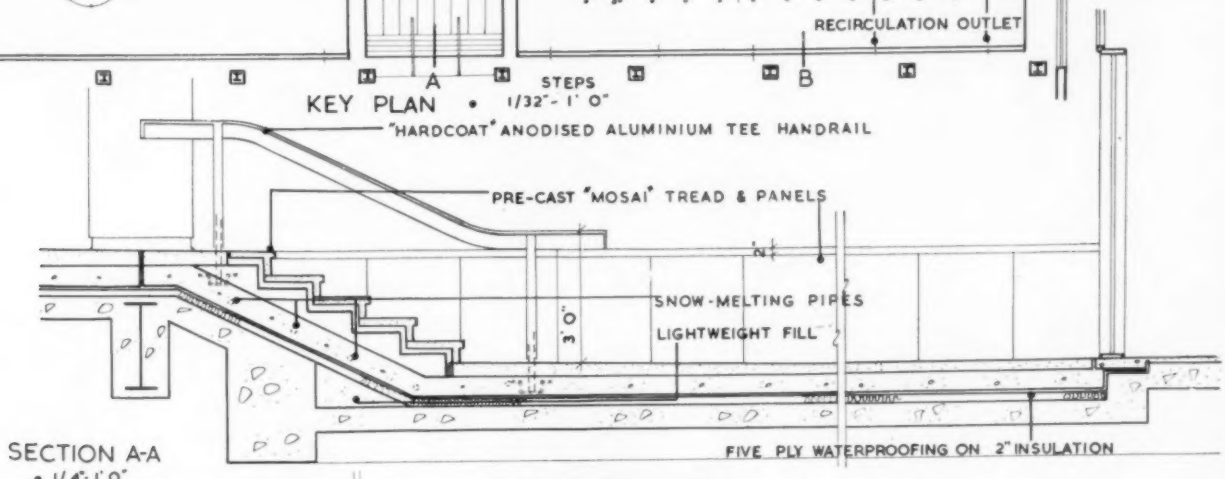
B T P TITANIUM PIGMENTS

BRITISH TITAN PRODUCTS COMPANY LIMITED COPPERGATE YORK

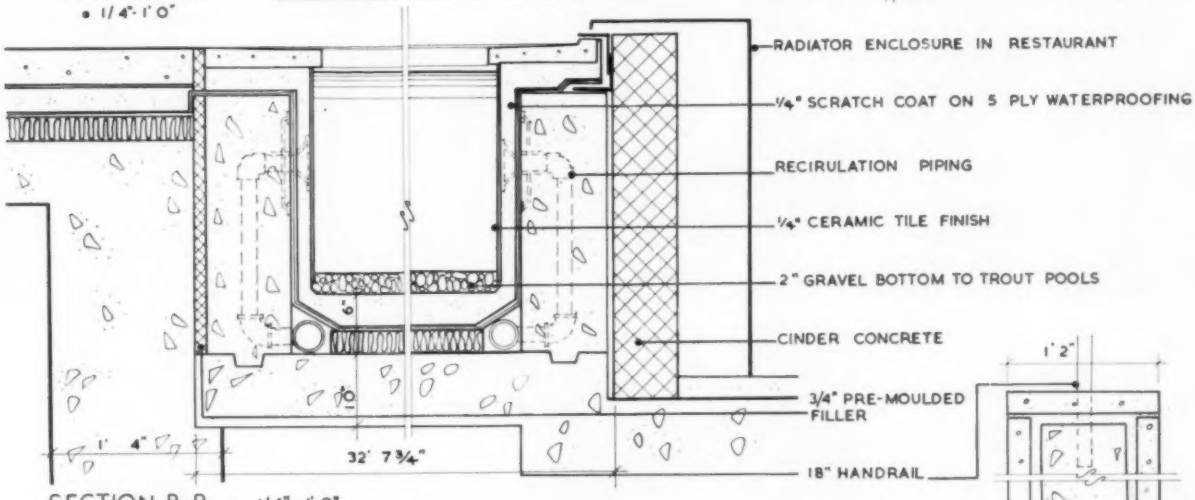
Factories at Grimsby and Billingham and at Burnie, Tasmania. Agents in most principal countries



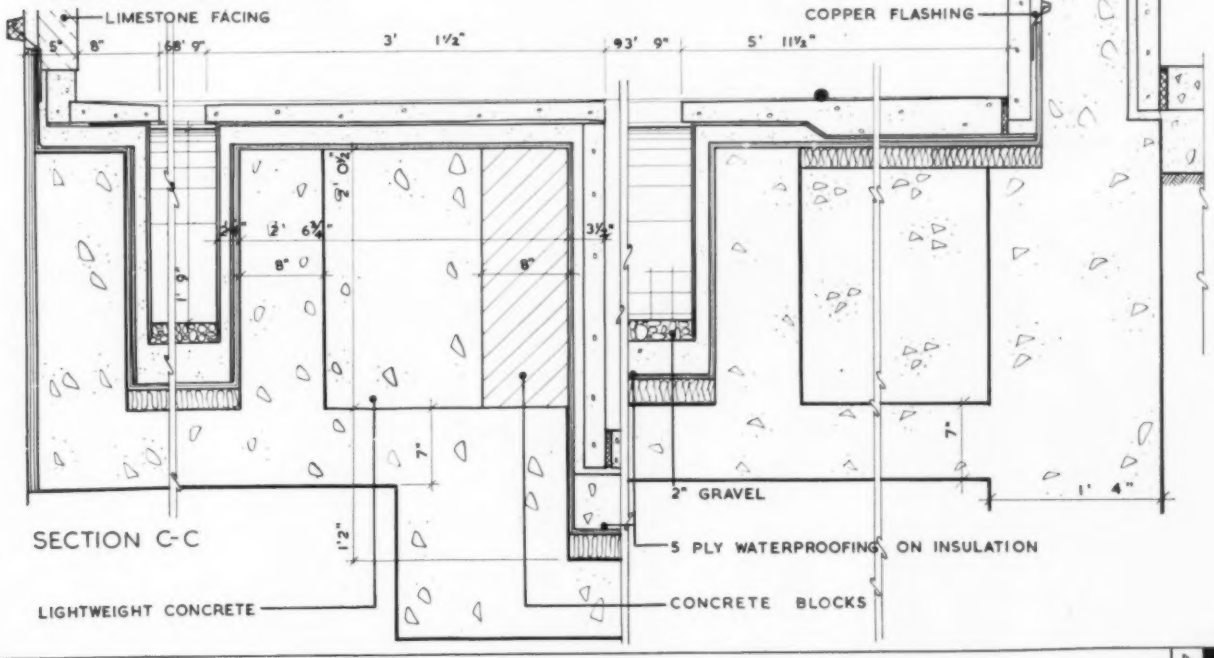
KEY PLAN • 1/32"-1'0"



SECTION A-A
• 1/4"-1'0"



SECTION B-B • 1/4"-1'0"



SECTION C-C

POOL. MILE HIGH CENTRE. DENVER. COLORADO. U.S.A. • I. M. PEI & ASSOCIATES FOR WEBB & KNAPP INC.

POOL, MILE HIGH CENTRE, COLORADO

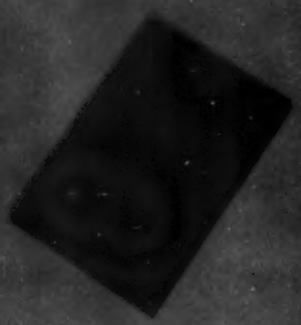
ARCHITECTS: I.M. PEI & ASSOCIATES

FOR WEBB & KNAPP INC.

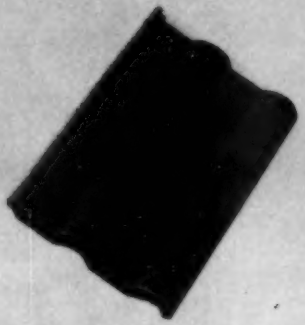
YEOMAN LIGHT RED 6¾″ × 13″
approx. weight of tiling 1000 lbs. per sq.

LUDLOW ANTIQUE 15″ × 9″
approx. weight of tiling 900 lbs. per sq.

PLAIN FULL GREEN · 10½″ × 6½″
approx. weight of tiling 2000 lbs. per sq.



PLAIN DARK RED · 10½″ × 6½″
approx. weight of tiling 2000 lbs. per sq.



YEOMAN BROWNSTONE · 16½″ × 13″
approx. weight of tiling 1000 lbs. per sq.

LUDLOW COTSWOLD GREY · 15″ × 9″
approx. weight of tiling 900 lbs. per sq.

MARLEY offer the widest selection of roof tiles in the world in five main types — PLAIN TILES, ANGLIA, YEOMAN, LUDLOW and WESTWOLD.

All Marley Roof Tiles are covered by the Marley dual guarantee:
A. That Marley Tiles will not laminate or decay for 50 years.
B. When fixed by Marley craftsmen, they will be maintained free for 10 years.

MARLEY

"Not for an age—but for all time"

The Marley Tile Company Ltd. Sevenoaks, Kent. Sevenoaks 55255.

WESTWOLD SEA GREEN · 10½″ × 6½″
approx. weight of tiling 2000 lbs. per sq.

ANGLIA BRICK RED · 15″ × 9″
approx. weight of tiling 900 lbs. per sq.

ANGLIA DARK GREEN · 15″ × 9″
approx. weight of tiling 900 lbs. per sq.

All weights are based on normal gauge for the type of tiling mentioned.

ROOFS revolutionary

EVERY Architect knows that roofs, in most cases the largest single continuous surface in a building, demand the most careful attention. In the past, the Architect chose the roof structure and would frequently have to conceal its unsightly appearance from within. Although this great sound reflecting surface also provided the easiest path for heat losses, *additional* cost made the use of thermal insulators or sound absorbants a luxury.

Not until Thermacoust Limited first introduced 2" Channel Reinforced Fine Grain (2" CRF) Roof Slabs, could roof structure, thermal insulation, sound absorption and fine textured finish be provided by *one* low priced material.
2" CRF has revolutionized roof construction. In one cheap unit all the following qualities are combined :—

- **Low first cost and simplicity of construction.**
- **30 lbs. superload up to 7' 0" span.**
- **Total roof thickness less than 3", saving inches of brickwork.**
- **Lightness of weight (7 lbs./sq. ft.), saving tons of supporting structure.**
- **Thermal Insulation (U=0.23 BTh.U), saving in fuel and size of heating installation.**
- **Fine textured finish needing little decoration.**
- **Sound absorption (0.85 at 500 cps.).**
- ★ **Availability ex stock in large quantities.**

Patents Pending

And now we offer, where no sound absorption is required the 2" Channel Reinforced Preplastered Thermacoust (2" CPP) with the following *additional* advantages.

- **Smooth finish.**
- **Highest possible light reflection.**
- **Preformed plaster in its strongest form.**

Thermacoust OF COURSE!

THERMACOUST LTD., 20 Albert Embankment, S.E.11 (RELiance 7281)

T.21

Cut Factory Painting Costs by half with AQUASHEEN

'Aquasheen' is a water-thinned Enamel which is applied with large wall brushes as easily and quickly as water paint. The cost of application is therefore considerably less than for conventional gloss paints. The initial cost of 'Aquasheen' is also less. It gives a splendid durable finish and complies with the Factory Acts whereby painting with 'Aquasheen' need be undertaken only once every seven years.
May we send further details ?

SAVE TIME AND MONEY WITH

AQUASHEEN

WATER THINNED ENAMEL

FOR INTERIOR USE ONLY

BRITISH PAINTS LIMITED

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Crewe House, Curzon Street, London, W.1.

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DATE OF ISSUE 29 NOVEMBER, 1956

CONTRACT • NEWS •

*Notes below give basic data of contracts open under locality and authority which are in a bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date of application, (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.*

OPEN

BUILDING

ALCESTER R.C. (a) 12 houses at Wilmcote. (b) Council's Surveyor, Council Offices, Alcester, Warwickshire. (c) 2gns. (e) December 29.

• • •

ALCESTER R.C. (a) 10 houses and sewage disposal plant at Dunnington. (b) Council's Surveyor, Council Offices, Alcester, Warwickshire. (c) 2gns. (e) December 29.

• • •

BECKENHAM B.C. (a) 6 bungalows on the Beck Lane estate. (b) Borough Engineer, Town Hall. (c) £2. (e) January 2.

• • •

BUCKS C.C. (a) (1) Erection of the first instalment of Little Kingshill primary school and village hall; (2) caretaker's house at Amersham secondary school. (b) County Architect, County Offices, Aylesbury. (d) December 4. (e) February 4.

• • •

BUCKS C.C. (a) (1) Erection of senior police officer's house at Farnham Road, Slough; and (2) nurse's house at Edlesborough. (b) County Architect, County Offices, Aylesbury. (d) December 4. (e) December 31.

• • •

CAERNARVONSHIRE C.C. (a) Erection of a house at Waunfawr. (b) County Architect, County Offices. (c) 2gns. (e) December 9.

• • •

CANVEY ISLAND U.C. (a) 10 bungalows and 8 bungalows, Contract No. 41, Wittem Road site. (b) Council's Engineer, Council Offices, Long Road. (c) 2gns. (e) December 7.

• • •

CARDIGANSHIRE C.C. (a) Erection of a new school house at Penuwch, nr. Tregaron. (b) County Architect, County Hall, Aberayron, Cards. (c) 1gn. (e) December 10.

• • •

ECCLES B.C. (a) 8 flats at the junction of Fairless Road and Barton Lane. (b) Borough Engineer, Town Hall Annexe, Irwell Place. (c) 2gns. (e) December 17.

• • •

EIRE—CO. CORK. (a) Erection of a school at "Richmount", Bandon, for the Incorporated Society for the Promotion of Protestant Schools in Ireland. (b) Messrs. Chillingworth and Levie, 11 South Mall. (c) £25. (e) December 7.

• • •

EIRE—CO. KERRY. (a) Proposed factory at Killorglin, for Messrs. Tailteann Sports Products Ltd. (b) Thomas C. Whelan, National Bank Chambers, 1-2 Cavendish Row, Dublin, or Patrick J. F. O'Sullivan, 5 Denny Street, Tralee. (c) 15gns. (e) December 12.

ESSEX C.C. (a) Erection of new milking parlour and covered yard at Bretts Farm, Romford Road, Aveley. (b) County Land Agent and Valuer, 69 Duke Street, Chelmsford. (e) December 12.

• • •

ESSEX C.C. (a) Complete internal decorations at Chelmsford Moulsham secondary school—boys' and girls' departments, estimated to cost approx. £7,000. (b) County Architect, County Hall, Chelmsford, Essex. (d) December 8.

• • •

ESSEX C.C. (a) Extensions and adaptations to "Knightswood", Southminster, a hostel for elderly persons at an estimated cost of £18,000. (b) County Architect, County Hall, Chelmsford. (d) December 1.

• • •

HARROW B.C. (a) Erection of houses, flats and ancillary works. Contracts of the following values: (1) over £100,000; (2) between £30,000 and £100,000; and (3) between £1,000 and £30,000. (b) Town Clerk, Harrow Weald Lodge, Harrow, Middlesex, accompanied by full particulars of works of the particular category recently carried out, preferably for local authorities, together with the name and address of the architect or authority and details of labour resources. (d) December. (e) November 30, 1957.

• • •

IPSWICH B.C. (a) 64 flats at Wells Street redevelopment. (b) Borough Engineer, 19 Tower Street. (c) 3gns. (d) December 6. (e) January 24.

• • •

KIRKBURTON U.C. (a) 6 bungalows at The Crescent. (b) Ian E. Mercer, Town Hall. (c) 2gns. (e) December 17.

• • •

LANCASHIRE C.C. (a) One pair of police houses at Denton, off Hulme Road; one pair at Haughton Green; one pair at Durham Avenue, Thornton Cleveleys; one pair at Rising Bridge Road, Haslingden; one pair at March House Lane, Darwen; one house, office and garage at Westhead Road, Croston. (b) County Architect, P.O. Box No. 26, County Hall, Preston, quoting Ref. A/MG. (d) December 4.

• • •

LANCASHIRE C.C. (a) (1) Builder's work in connection with conversion of heating to oil-fired at Middleton Alkrington school; (2) erection of 3-form entry secondary school; and (3) erection of second stage of a college of further education at Accrington (b) County Architect, P.O. Box No. 26, County Hall, Preston, quoting Ref. A/MG. (d) December 4.

LIVERPOOL C.C. (a) Erection of electricity sub-station at Fazakerley Cottage Homes, Longmoor Lane. (b) City Engineer, Municipal Buildings, Liverpool, 2, in writing. (e) December 8.

• • •

LIVERPOOL C.C. (a) Erection of a science laboratory and dining hall extension at Holly Lodge High School, Liverpool, 12. (b) City Architect, Blackburn Chambers, Dale Street, Kingsway, Liverpool, 2. (c) 2gns for each contract, payable to City Treasurer. (e) December 8.

LOWESTOFT B.C. (a) Additional classrooms and cloakroom accommodation at Northfield junior school, St. Margaret's Road. (b) Borough Engineer, 49 High Street. (c) 2gns. (e) December 7.

• • •

MANCHESTER CORPORATION. (a) Erection of district depot and staff houses at Church Lane, Moston. (b) City Architect, P.O. Box 488, Town Hall. (e) December 8.

• • •

MANCHESTER CORPORATION. (a) Additions and alterations at Briscoe Lane primary school. (b) City Architect, P.O. Box 488, Town Hall. (e) December 8.

• • •

MARCH U.C. (a) Erection of (Group A) 10 houses; (Group B) 18 bungalows; and (Group C) 22 bungalows at Badgeney Road estate. (b) Council's Architect, Town Hall, March, Cambs. (c) 2gns. (e) December 7.

• • •

NEWCASTLE UPON TYNE EDUCATION COMMITTEE. (a) Erection of a primary school on a site at Kenton. (b) Director of Education, City Education Office, Northumberland Road, Newcastle upon Tyne, 1. (c) 5gns by cheque, payable to Education Committee. (d) December 12. (e) January 21.

• • •

NORTHAMPTONSHIRE C.C. (a) Erection of extensions at Rothwell, Thrapston and Towcester secondary schools, to be started during the first half of 1957. (b) County Architect, County Hall. (d) December 4.

• • •

N. IRELAND—ANTRIM E.C. (a) Proposed alterations to gymnasium at Ballymena technical school, Ballymena. (b) Crofton G. Dalzell, 6 Bath Street, Portrush. (c) £5. (e) December 13.

• • •

N. IRELAND—NORTHERN IRELAND GENERAL HEALTH SERVICES BOARD. (a) Alterations to surgery and waiting room at the former dispensary residence at Finvoy, Ballymoney. (b) The Secretary, Northern Ireland General Health Services Board, 9 Upper Queen Street, Belfast. (e) December 7.

ORRELL U.C. (a) 14 houses on the Kitt Green site. (b) Council's Engineer, Council Offices, Orrell Post, Wigan. (e) December 10.

* * *

PONTYPOOL U.C. (a) 42 terrace houses at Trevethin Neighbourhood Unit, Phase 2, Scheme "B". (b) Council's Architect, Market Buildings, Pontypool, Mon. (c) 2gns. (e) December 11.

* * *

PORTSMOUTH C.C. (a) 94 houses at Parkhouse Farm, Leigh Park. (b) City Architect, 1 Western Parade. (c) £1. (d) December 8.

* * *

READING B.C. (a) Erection of Alice Jenkins Aged Persons' Home in Liebenrood Road. (b) Borough Architect, Town Hall. (c) 2gns by cheque, payable to Corporation. (e) January 4.

* * *

ROCHESTER C.C. (a) 35 houses at Warren Wood Redevelopment, second stage. (b) City Surveyor, 66 Maidstone Road, Rochester. (c) 2gns. (e) December 31.

* * *

ST. ALBANS C.C. (a) 40 houses on London Road estate. (b) City Engineer. 16 St. Peter's Street. (c) 3gns. (e) December 11.

* * *

SALISBURY. (a) 14 bungalows for old people at "Brympton", 133 Harnham Road, for the Trustees of Salisbury Municipal Charities. (b) S. Elgar, 65 New Street, Salisbury, Wilts

* * *

SPALDING R.C. (a) 7 bungalows and site works at Moulton village. (b) Council's Architect, Council Offices, Priory Road.

STAFFORDSHIRE C.C. (a) Carrying out minor alterations to Darlaston Nurses' Home, 2 Station Street. (b) Council's Clerk, County Buildings. (e) December 17.

* * *

WALSALL. (a) Erection of the third instalment of the Walsall and Staffordshire Technical College, Wisemore, at an estimated cost of £259,000 for the Governors. (b) V. Millson, Walsall and Staffordshire Technical College, giving details of work of a similar size and nature previously carried out. (d) December 3. (e) February 15.

* * *

WARRINGTON B.C. (a) 8 shops and 8 flats at Capesthorne Road and Poplars Avenue. (b) Borough Surveyor, Town Hall. (c) 3gns. (e) December 7.

* * *

WEST SUSSEX C.C. (a) Erection of two classroom extensions with cloakroom and lavatory accommodation at Horsham Trafalgar primary school (Job No. 4594). (b) County Architect, County Hall, Chichester. (d) December 7.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

NEATH, GLAM. (1) Laboratories for National Oil Refineries Ltd. (2) Llandarcy. (3) Staverton Builders Ltd., Totnes, Devon. (4) £240,000.

* * *

NOTTINGHAM. (1) Six-storey laboratory wing, for Boots Pure Drug Co. Ltd. (2) Pennyfoot Stile. (3) William Moss and Sons Ltd., Loughborough, Leicestershire. (4) £570,000.

LONDON, W. (1) Block of offices, for Argent Properties Investment Co. Ltd. (3) Myton Ltd., Park Street, London, W.1. (4) £490,000.

* * *

OXFORD REGIONAL HOSPITAL BOARD. (1) First stage of new hospital. (2) Swindon. (3) W. E. Chivers and Sons Ltd., Devizes, Wilts. (4) £528,700.

* * *

HARLOW NEW TOWN. (1) Factory and offices. (2) Industrial area. (3) Y. J. Lovell and Son Ltd., Gerrards Cross, Bucks. (4) £138,000.

* * *

PLYMOUTH. (1) Factory. (2) Whitleigh. (3) Dudley Coles Ltd., Bath Street, Plymouth. (4) £101,362.

* * *

BRACKNELL DEVELOPMENT CORPORATION. (1) 261 houses. (2) Easthampstead. (3) Geo. Wimpey and Co. Ltd., Hammersmith Grove, London, W.6.

* * *

ELLESMERE PORT, CHES. B.C. (1) 106 houses. (2) North Whitley estate. (3) T. Warrington and Sons Ltd., Ellesmere Port. (4) £144,000.

* * *

ROWLEY REGIS B.C. (1) 100 houses. (2) Tividale estate. (3) Eadie and Co. (Wolverhampton) Ltd., 29 Waterloo Road, Wolverhampton. (4) £151,000.

LEAMINGTON SPA B.C. (1) 59 flats. (2) Crown Way. (Lewis and Watters Ltd., Lime Avenue, Leamington Spa. (4) £79,690. (1) 22 flats, 13 houses. (2) Kingsway Corner. (3) Clarke Bros. (Leamington) Ltd., Leamington Spa. (4) £57,647.

* * *

MANCHESTER. (1) Factory for A. C. Scott and Co. Ltd. (2) Roundthorne industrial area. (3) J. H. Johnson, 6 Hazel Grove, Great Crosby, Liverpool.

* * *

SWINDON E.C. (1) Infants' school. (2) Walcot East. (3) John Pallison (Building Contractor) Ltd., 52A Bramble Road, Swindon. (4) £57,186.

* * *

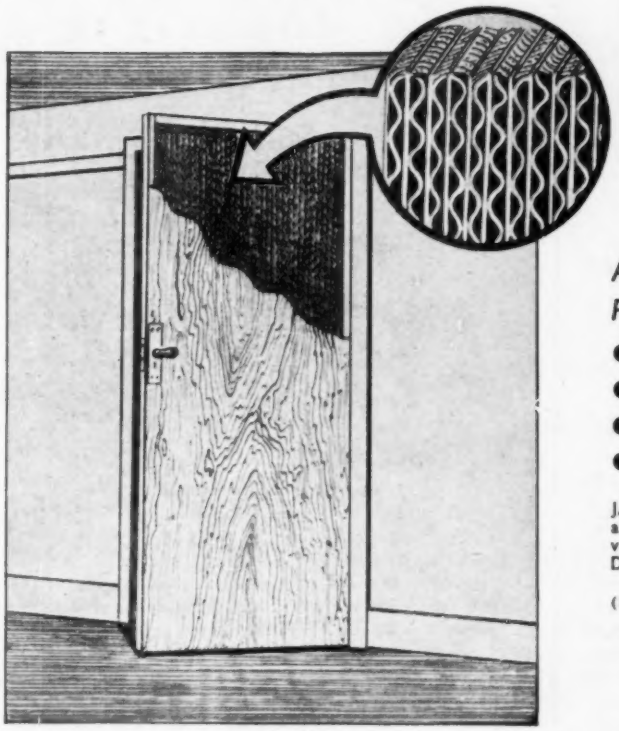
SHEFFIELD REGIONAL HOSPITAL BOARD. (1) Outpatients' department. (2) Nottingham City Hospital. (3) Simms, Sons and Cooke Ltd., Haydn Road, Sherwood, Nottingham. (4) £97,011.

* * *

NOTTS C.C. (1) Secondary school. (2) Calverton. (3) W. J. Simms, Sons and Cooke Ltd., Haydn Road, Sherwood, Nottingham. (4) £124,549. (1) Extension to secondary school. (2) Toot Hill, Bingham. (3) Same contractors. (4) £140,723.

* * *

CAMBRIDGE B.C. (1) Erection of Central Grammar School for Boys. (3) Gilbert-Ash Ltd., 1 Stanhope Gate, London, W.1. (4) £177,907



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Flush Doors

Exton Patent

A FIRST-CLASS BRITISH MADE PRODUCT AT COMPETITIVE PRICE

- Freedom from warp and wind
- Exceptional lightness
- High thermal and sound-insulating properties
- Utmost timber economy

JABLO FLUSH DOORS are specially suitable for hospitals and schools. Facings are 4 m.m. ply in a variety of veneers also ¼" hardboard. Tested and approved by Department of Scientific and Industrial Research.

(Now being supplied to: Crown Agents, Foreign Governments, Local Authorities and well-known Building Contractors.)

Literature and full particulars from:—

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Limited

JABLO WORKS - CROYDON - Tel.: CRO 2201-6922

Does the Best necessarily cost the most?

OBSERVATORY ACCURACY FOR COMMERCE & INDUSTRY

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ELECTRICAL IMPULSE CLOCKS

These are known the world over for their accurate time-keeping. They have been installed by hundreds of large and industrial and commercial undertakings. Educational and Municipal Authorities throughout the world. Makers of fine clocks for over 60 years.

THE MOST ACCURATE PENDULUM CLOCK IN THE WORLD

THE SYNCHRONOME COMPANY LTD.
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SCOTLAND
Messrs. Ellis & McDougall, 12 Sawmillfield Street, Glasgow, C.4
Telephone Glasgow DOUglas 6566

OFFICIAL ANNOUNCEMENTS

APPOINTMENTS • CONTRACTS • TENDERS

Rate 1/6 per line, minimum 3/- *Close for press 1st post Monday for following Thursday Issue*

APPOINTMENTS

COUNTY LONDONDERRY EDUCATION COMMITTEE

ARCHITECTURAL ASSISTANT

APPLICATIONS are invited for the above position in the Committee's Offices in Coleraine.

Applicants must have passed the Intermediate R.I.B.A. Examination. Salary within the range £469—£791 per annum according to qualifications and experience.

Application Forms and Conditions of Appointment may be obtained from the Director of Education, New Row, Coleraine, and completed forms should be returned not later than Saturday, December 8, 1956. [2892

BOROUGH OF ROYAL LEAMINGTON SPA

ARCHITECTURAL ASSISTANT, GRADE IV/V

APPLICATIONS are invited for the above post in the Borough Engineer's Department at a salary within A.P.T. Grade IV/V. Starting salary will be subject to qualifications and experience. Candidates must be Corporate Members of the Institute of British Architects.

Housing accommodation will be provided if required.

Further details and forms from the Borough Engineer, to whom completed forms of application must be sent to reach him not later than December 15, 1956.

JAMES N. STOTHART,
Town Clerk.

Town Hall,
Leamington Spa. 2900

COLLEGE OF TECHNOLOGY, BIRMINGHAM (DESIGNATED COLLEGE OF ADVANCED TECHNOLOGY)

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

APPLICATIONS are invited for the post of Lecturer in Building Subjects.

Substantial and wide professional or industrial experience is desired and candidates should preferably hold an appropriate professional qualification. Previous teaching experience would be an advantage.

Salary will be in accordance with the Burnham (Further Education) Scale for Lecturers—(Men) £1,200 x £30—£1,350.

Further particulars and form of application may be obtained from the Registrar, College of Technology, Suffolk Street, Birmingham, 1, on receipt of a stamped addressed foolscap envelope. Closing date—two weeks after the appearance of this advertisement.

K. R. PILLING,
Clerk to the Governing Body. [2897

METROPOLITAN BOROUGH OF PADDINGTON

QUANTITY SURVEYOR (A.P.T. VI—£932 to £1,137 p.a.)

APPLICATIONS are invited for the above-mentioned appointment in connection with housing and other civic building schemes from candidates with experience of all branches of building work and who are familiar with a quantity suveyor's duties, including preparing bills of quantities for building works, site measurements, settling final accounts and preparing estimates of cost. Associate membership of R.I.C.S. preferable.

Applications in writing to the undersigned by 10th December, 1956 (quoting A.313) must state age, qualifications, present and past appointments with dates and salaries, experience and names and addresses of three referees.

W. H. BENTLEY,
Town Clerk.

Town Hall,
Paddington Green, W.2. [2898

HER MAJESTY'S OVERSEA CIVIL SERVICE

BUILDING SURVEYOR, PUBLIC WORKS DEPARTMENT, HONG KONG

TO examine and approve plans submitted by private architects to ensure compliance with the Buildings Ordinance and to administer that ordinance under the Chief Building Surveyor.

Pensionable appointment. Salary £1,245 to £2,178 15s p.a. plus cost of living allowance. Quarters, if available at low rents. Free passages for the officer and his family to a total cost of 5 adult fares. Generous leave. Low income tax.

Candidates must be A.R.I.B.A., A.R.I.C.S. (Buildings) or A.M.I.C.E., with at least one year's post qualification experience, and aged under 45.

Write Director of Recruitment, Colonial Office, London, S.W.1, giving age, qualifications and experience, quoting BCD 112/51/02. [2891

APPOINTMENTS—contd.

GLANFORD BRIGG RURAL DISTRICT COUNCIL

APPLICATIONS are invited for the appointment on the permanent staff of the above Council of an Architect preferably with engineering experience.

The salary will be in accordance with the A.P.T. Divisions of the National Provincial Council scheme, the Grade to be fixed according to experience.

The appointment will be subject to the conditions of service of the National Joint Council and to be determined by two month's notice on either side and also subject to the Local Government Superannuation Acts. The successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications, present and previous appointments and details of experience together with the names and addresses of two referees, to be endorsed "**Architect**" and must be delivered to the undersigned not later than noon on Monday, December 10, 1956.

Housing accommodation can be made available to the successful applicant.

T. MORGAN,
Clerk of the Council.

Rural Council Offices,
Bigby Street,
Brigg, Lincs.
November 23, 1956. [2910

WELSH REGIONAL HOSPITAL BOARD

APPLICATIONS invited from Registered Architects for the 3 pensionable posts of Assistant Architects on permanent staff of Regional Architect in Cardiff. Salary £680—£985.

Applicants must have passed final R.I.B.A., be well experienced in the preparation of 1/8th scale working drawings, details, specifications, surveying, levelling and supervision of contracts.

Applications, stating age, experience, qualifications, present position and salary, together with the names of two referees to Secretary, Temple of Peace, Cathays Park, Cardiff, as soon as possible. [2884

LONDON COUNTY COUNCIL

ARCHITECT'S DEPARTMENT

VACANCIES exist for Architect/Planner (salaries up to £817). Tasks include three-dimensional planning within London's eight major Comprehensive Development Areas (including Stepney/Poplar, the South Bank, and Elephant and Castle) and other Redevelopment Areas.

The work includes the preparation of comprehensive layouts covering all the important areas of new public and private development throughout the County, and covers the whole field of planning technique.

Particulars and application form, from Architect (AR/EK/APT/21), County Hall, S.E.1. (907). [0006

CITY OF BIRMINGHAM

CITY ARCHITECT'S DEPARTMENT

APPLICATIONS are invited for appointments as Assistant Architects and Architectural Assistants in the three Architectural Sections of the City Architect's Department. The large programme of work within these Sections covers the planning, design and construction of Educational Buildings; various Civic Buildings; and all types of Municipal Dwellings, including multi-storey flats, together with ancillary buildings and shopping centres in connection with the Central Redevelopment Areas and other sites.

Vacancies exist in the following Grades:

(a) Assistant Architects, Grade APT. V (£814 17s 6d—£994 8s per annum).

(b) Assistant Architects, Grade APT. IV (£727 15s—£907 2s 6d per annum).

(c) Architectural Assistants, Special Classes, Ad Hoc Scale.—(£707 5s—£861 per annum).

(d) Architectural Assistants, Special Classes, Grade APT. II (£629 17s 6d—£711 17s 6d per annum).

(e) Architectural Assistants, Special Classes, Grade APT. I (£563 5s—£645 5s per annum).

Applicants for posts (a) and (b) must be Associate Members of the R.I.B.A. or hold equivalent qualifications, and for posts (c), (d) and (e), must be suitably qualified in accordance with the regulations of the National Joint Council for Architectural Assistants.

The commencing salary in all grades will be according to capabilities and experience.

The posts are permanent, superannuable, subject to a medical examination, and to one month's notice on either side.

Applications, endorsed with the heading of the post, stating age, present position and salary, qualifications and experience, together with the names of two persons to whom reference can be made, should reach the undersigned by not later than December 14, 1956.

Canvassing disqualifies.

A. G. SHEPPARD FIDLER,
City Architect.

Civic Centre, Birmingham, 1. [2868

APPOINTMENTS—contd.

COUNTY BOROUGH OF ROCHDALE

APPLICATIONS are invited from suitably qualified Candidates for the appointment of a Quantity Surveyor in the Architect's Department of the Borough Surveyor's Office, at a salary on Grade A.P.T. V (£795—£970). The commencing salary will not necessarily be the minimum of the Grade and will be fixed according to ability and experience.

The appointment will be subject to the National Scheme of Conditions of Service, the Local Government Superannuation Acts, and to passing a medical examination. Canvassing is prohibited and applicants must disclose whether they are related to any member or Senior Official of the Council.

Housing accommodation will be provided by the Council in appropriate circumstances.

Applications stating age, qualifications, training and experience, together with the names and addresses of two persons to whom reference can be made, and endorsed "**Quality Surveyor**" must be delivered to the Borough Surveyor, Town Hall, Rochdale, not later than 9 a.m. on Thursday, December 20, 1956.

K. B. MOORE,
Town Clerk. [2906

TENDERS

CITY OF BIRMINGHAM HOUSING MANAGEMENT DEPARTMENT

CLEFT CHESTNUT FENCING

THE Housing Management Committee of the Birmingham Corporation invites tenders for the supply and delivery of approximately 150,000 yards of 3ft cleft chestnut fencing, 30,000 yards of 3ft 6in cleft chestnut fencing and 60,000 4ft 6in stakes to be supplied during the twelve months commencing February 1, 1957.

The attention of persons submitting tenders is drawn to the following points:

(1) Delivery will be required in twelve equal monthly instalments, but deliveries can if it suits the supplier be made in advance.

(2) Tenders may be accepted for quantities less than the total amount specified, but such tenders must not be for less than 20,000 yards of fencing and 6,000 stakes.

Forms of tender can be obtained from the undersigned at 19-29 Summer Row, Birmingham, 3 and should be returned by December 10, 1956.

J. P. MACKY,
Housing Manager. [2875

TUITION

COURSES FOR R.I.B.A. EXAMS

POSTAL tuition in any subject or for full syllabus of Inter. Final or Special Final, including Professional Practice, Revision Courses arranged to meet individual requirements. Courses also available in general educational subjects for G.C.E., R.I.C.S., Preliminary, etc.

THE ELLIS SCHOOL OF ARCHITECTURE

(Principal: A. B. Waters, F.R.I.B.A.) 103D Old Brompton Road, London, S.W.7 (KEN 4477), and at Worcester. [0789

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No responsibility accepted for errors.

ARCHITECTURAL APPOINTMENTS VACANT

ARCHITECTURAL Draughtsman required for eminent Architect's Office with interests throughout the Country. Superannuation scheme and Luncheon Club. Apply in writing to Cotton, Ballard & Blow, 5 Baker Street, London, W.1. [0022

ARCHITECTURAL Assistant wanted, to work on new, but quickly developing system of prefabrication for schools, halls, hospitals etc. Interesting work with excellent prospects. Offices in S.E. London area, write stating age, experience and salary required to Box 5447. [0023

ARCHITECTURAL Assistant required of post intermediate R.I.B.A. standard, capable of preparing sketch schemes, working drawing and details. Interesting work, good salary and prospects. Reply giving full particulars of experience etc., to Henry A. Ellis & Son, F/L.R.I.B.A., M.I.Struc.E., 6 Wind Street, Swansea. [2904

ARCHITECTURAL Assistant, intermediate standard, required by City firm. Good salary and prospects.—Box 5487. [2905

ASSISTANT Architects required for varied practise. City centre. R.I.B.A. and Intermediate Standard. Apply in writing to Oxley and Bussey, 91 Pinstone Street, Sheffield, 1, Yorks. Envelope to be endorsed "Assistant Architect". [2895

FIRST class Architectural Draughtsman required urgently by a West-end company. Bonus, luncheon vouchers and excellent prospects.—Apply, Box No. 5488. [2908

LEADING Timber Building Prefabricating Company requires for its Farnborough Office, an Architectural Draughtsman. Applicants should be quick and accurate with a contemporary outlook. Salary according to experience. Five day week, pleasant working conditions, staff canteen. Apply in writing giving full details of age and experience to H. & H. Blacknell Ltd., Park Place, Pinehurst Avenue, Farnborough, Hants. [0021

MIDLOTHIAN County Council require (a) Senior Architectural Assistant (£1,000—£1,150), (b) Architectural Assistant (£905—£980), (c) Architectural Assistant £805—£870), and (d) Architectural Assistant £710—£805). Applicants for (a), (b) and (c) must be members of the R.I.B.A. and all must have practical experience of school and house design.

Superannuable. Applications with full particulars and copy testimonials to the County Clerk, County Buildings, George IV Bridge, Edinburgh, 1. [2890

POST-INTERMEDIATE Assistant required, in large London office with widely varied practice.—Lewis Solomon, Son & Joseph, 21 Bloomsbury Way, London, W.C.1. Telephone: HOL 7082. [0010

PERMANENT senior and junior architectural assistants required by Troup & Steele, Chartered Architects, 14 Gray's Inn Square, W.C.1. Pension scheme in operation. [2894

QUALIFIED Architects' Assistant, age 22 to 30, required in progressive London office. Salary £650-£850 according to age and experience.—Box No. 5480. [2896

SITUATIONS VACANT

DRAUGHTSMAN required at Vitamins Limited's new factory in Manor Royal, Crawley. Applicants need not necessarily be fully qualified but a technical qualification in building or similar experience would be an advantage. The work involves design and modification of buildings and plant layout. Apply giving details of age, qualifications and experience to Personnel Manager, Vitamins Group, Upper Mall, Hammersmith, W.6. [2893

MAY & BAKER LTD., Dagenham, Essex, require a Building Draughtsman, (aged 22/30), in connection with Factory alterations and extensions. Applicants must have a sound knowledge of building construction. Apply initially in writing, quoting reference No. 3, to the Personnel Officer. [2911

WOOD Machinists required and used to Spindle preferably. Permanent position and good wages. Must be experienced.—Harding Bros. (Sawmills), Ltd., 100 Kingsland Road, E.2. [2885

SITUATIONS VACANT—contd.

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The vacancies are as follows:

1. A CIVIL ENGINEER to be responsible to the Chief Civil Engineer for aspects of projects referred to above. A degree or equivalent qualification is necessary, and some experience of the design of industrial plant would be an advantage.

2. AN ARCHITECTURAL DRAUGHTSMAN. He would be responsible for preparing drawings appertaining to the civil engineering aspects of new plant design. He should have several years experience of this type of work.

Both posts are permanent, and carry membership of the company's non-contributory life and superannuation scheme. Assistance with house purchase may be available.

Applications should be sent to the Staff Officer, Ref. 339, Albright & Wilson Ltd., P.O. Box 3, Oldbury, Birmingham, stating briefly, the post applied for, and age, qualifications and experience. [2903

SECRETARY required for Quantity Surveyors' London office. 25 to 40 years. High educational standard, secretarial trained, expert typist, good at figures and book-keeping. Salary £520—£624 p.a. according to experience. Particulars in writing to Box 5394. [2882

SHOPFITTING—Designer Draughtsmen required immediately by leading firm of Shopfitters in Sheffield. Permanency for suitable applicants. Write stating full personal qualifications and salary required to George Barlow & Sons Ltd., Keetons Hill, London Road, Sheffield, 2. [2902

SLIDING Door Gear Manufacturers—full-time representation needed to effect complete liaison between architects, quantity surveyors, builders and suppliers in Birmingham and Manchester areas. Architectural qualifications essential. Salary by arrangement, contributory pension scheme. Write stating experience and age. Replies treated confidentially.—Hill Aldam, Britannic Works, Haslemere Avenue, London, S.W.18. [2899

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WELL established firm of South West Architects with London office, offer to act for London Architects who are at present carrying out Contracts in the South-West and whose supervisory activities may be curtailed by coming petrol restrictions. Factories, Public buildings, Offices, Schools, Chain Stores, Public Houses etc.—Box 5489. [2909

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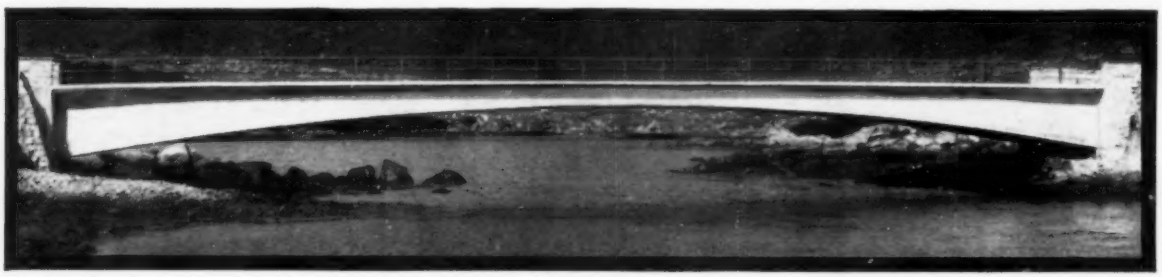

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